Chapter 1
A Grammatical Sketch of Petalcingo Tzeltal

This chapter is an attempt to provide a grammatical overview of Petalcingo Tzeltal. While necessarily quite partial, the background provided in this chapter will be important for understanding the points I will argue in the chapters that follow. Also, as Petalcingo Tzeltal has not received much attention from linguists to date, my hope is that the present chapter may be useful in its own right.

Phonetics and Phonology

The phonology of Petalcingo Tzeltal is fairly straightforward. Although some phonological rules serve to obscure morpheme and word boundaries, for the most part the surface form reflects the underlying phonological structure relatively transparently. On the other hand, the absence of complex phonological rules and lack of features such as vowel harmony sometimes makes it difficult to identify word boundaries independent of speaker judgments.

Phonemic Inventory

The phonemic inventory of Petalcingo Tzeltal is unremarkable: the vowel system is one of the most common 5-vowel types, while the main distinguishing feature of the consonant system is a presence of ejectives, which is typical for many Mayan languages.

Consonants

Petalcingo Tzeltal features the following phonemic consonants:

	Bilabial	Alveolar	Post-Alveolar	Velar	Glottal
Stops	/p/ /b/	/t/		/k/	/7/
Ejective Stops	/p^/	/t^/		/k^/	
Nasals	/m/	/n/			
Rhotics		/r/			
Affricates		/ts/	/ch/		
Ejective Affricates		/ts^/	/ch^/		
Fricatives		/s/	/x/	/j/	/h/
Approximants		/l/		/y/	

Table 1: Consonants

Several of the phones listed above necessitate further explanation. Some authors posit that there are no voiced stops in Tzeltal and other related Mayan languages, and that the putative

voiced bilabial stop is rather an implosive (Dayley 1981 cites Kaufman 1971, but that work seems to assume a voiced plosive as the underlying phoneme). Kaufman 1972 posits an implosive for the proto-language, while listing a voiced stop as part of the phonemic system of Petalcingo Tzeltal. The devoicing rule application (see "Lenition" on page 13, below) to this phone suggests that whatever its phonetic properties, for this dialect the voice stop analysis may be preferable. In either case, very little in the present work hinges on one analysis or the other.

The /j/ versus /h/ distinction has a phonemic status in Petalcingo Tzeltal, unlike that in some other dialects. In Bachajon Tzeltal (Slocum, Gerdel, and Cruz Aguilar 1999) both fricatives have full phonemic status, while in general in Tzeltal these phones are considered to be allophones of the same phoneme (Sánchez Gómez et al 2003, and Polian 2003b). In Petalcingo Tzeltal these seem to have a phonemic status, but one that does not bear a high functional load: there are a few minimal pairs, such as in (1), where the back fricative is the distinguishing feature; however, most of the time, the distribution of these phones is complementary. In some phonological environments, it seems that an underlying /h/ is realized as [j].

(1)	y-ajan	*vs*	y-ahan
	POSS:3-corn cob		POSS:3-under
	'his/her corn cob'		'under it'

Kaufman 1972, on the basis of the phonemic back fricative distinction, voiced bilabial plosive, and other phonetic features groups Petalcingo Tzeltal with Bachajon as one of the seven phonemic systems he recognizes in current Tzeltal. It seems, however, that the functional load of /h/ vs. /j/ appears to be smaller in Petalcingo then in Bachajon, though it bears mentioning that in my limited contact with Bachajon speakers the phonology of /h/ vs. /j/ sounded similar to that in Petalcingo Tzeltal. In general, the /h/ vs. /j/ distinction posed significant challenges for me. Though all speakers had the *yajan* / *yahan* distinction, the frontedness of articulation seemed to vary between speakers. Moreover, when overlaid on top of the vowel aspiration (discussed in the next section), the phonology of /h/ vs. /j/ appeared particularly intractable. For example, the morpheme used to derive the middle voice verbs in Tzeltal is an infix consisting of these two back fricatives: when added to a non-aspirated vowel root the infix seemed more like /h/, while in an aspirated root it was pronounced more like the /j/ in *chij* or *yajan*. As a result, there are inconsistencies in my transcription of these phones: I have standardized the transcription of some lexemes (like *laj*, for example) where I am sure that whatever the nature of the underlying fricative, the morpheme remains the same, however, with other morphemes and lexemes the transcription may alternate between /h/ and /j/, depending on the speaker, and how I heard the phone.

Two of the phones listed above have a rather marginal status: the rhotic /r/ and the bilabial approximant /w/. The rhotic appears in very few roots, and as the "native" pronunciations of some loan words indicate, its distribution may be severely restricted. For example, it seems that it cannot appear word-finally. The following example shows a loanword, and its standard pronunciation in Petalcingo:

(2) poder → [porel]

The 1st-person ergative exclusive morpheme sometimes features a /r/ phone and sometimes not, even with the same speaker.

The bilabial approximant, /w/, when occurring in roots, is heavily velarized in Petalcingo Tzeltal, to the point of acting like a velar for the purposes of certain phonological rules (see "Assimilation," on page 12, below):

(3) ja7in winiki → [xaʔiŋwˠiki]

Though the velarization is stronger when followed by a high, front vowel, all roots exhibit it to a certain degree. The phone/w/, when in roots, always occurs as the initial consonant of the root, never the final. In inflectional morphology (such as the pre-vocalic 2nd-person ergative marker *-aw*) the /w/ is never velarized.

Though phonetically an glide, there is evidence that /w/ should be considered a consonant in Tzeltal. First, it acts like a consonant for the purposes of devoicing rules. Secondly, counting /w/ among consonants would allow us to consider roots such as *wah* ("tortilla") to have the canonical CVC shape, rather than the unusual VVC shape. Finally, it is never syllabified into a nucleus.

In addition to the consonantal phonemes listed above, which are judged to be "native," many Spanish phonemes (such as /d/, /g/, /f/) also seem to have phonemic status in some speakers' idiolects.

Vowels

Tzeltal features a typologically quite common five vowel system, shown below:

/i/ /u/
/e/ /o/
/a/

Table 2: Vowel System

Some authors argue that Tzeltal maintains a phonemic distinction between short and long vowels. For Petalcingo Tzeltal, this is one way of looking at some phonemic contrasts present in the language: some words are distinguished solely by voiceless aspiration following the vowel of the CVC root. This difference could be analyzed as a vowel length distinction (which allows the analyst to preserve the abstract "purity" and simplicity of CVC roots), or as a separate phone (a voiceless glottal fricative), which allows the analyst to preserve the simplicity of the vowel system. Attinasi 1973, argues for vowel length distinction in Chol, and relates it (for Mayan languages in general) to the aspiration, or occurance of /h/. Here, I will transcribe the aspirated roots with a separate [h] segment; however, little in this work depends on this analysis. Some relevant examples:

(4) a. tuhl *vs* tul
'one (person)' 'to cut'

b. yahl *vs* yal
'to fall' 'his child'

c.	mahts^	*vs*	mats^
	'to drain'		'posol'[6]

The aspiration of the vowels seems to differ from speaker to speaker.

Phonological Processes

What follows is a rough-and-ready description of some of the phonological rules I've been able to identify in this interesting dialect. In general, in Petalcingo Tzeltal, epenthesis and (vowel) deletion seem to be the only rules limited to the domain of the phonological word. The other phonological rules (such as degemination, assimilation, etc.) seem to frequently operate independently of word boundaries.

Assimilation

There are several different types of assimilation in Petalcingo Tzeltal, and each one will be described in turn below.

(i) The alveolar nasal assimilates to the following plosive's or nasal's place of articulation. This phonological rule seems to work across word boundaries:

(5)	a.	yan parte	→	[jamparte]
	b.	jun baso	→	[xumbaso]
	c.	onkonak	→	[oŋkonak]

The bilabial nasal does not assimilate:

(6)	cham + tes	→	[tʃamtes]

(ii) Alveolar and post-alveolar fricatives, affricates, and stops assimilate in place of articulation to the following (post)alveolar fricatives, affricates, and stops:

(7)	a.	och spasik	→	[otspasik][7]
	b.	s + chij	→	[ʃtʃix]
	c.	chololet + xanix	→	[tʃololet̪ʃaniʃ]

Example (7c) requires slight elaboration: normally the /t/ in Tzeltal is dental or alveolar, but in this case the word-final /t/ of *chololet* assimilates to the post-alveolar place of articulation of the following phone, [ʃ].

(iii) The glottal fricative assimilates in place of articulation to the following vowel:

(8)	a.	kta(h)ix	→	[ktaɣiʃ]

This phonological rule demonstrates an allophonic status of the two back fricatives /h/ and /j/ in some environments.

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[6] Posol is a traditional comestible which is often consumed while working in the fields. It is corn gruel made by mixing ground cooked corn with water.

[7] In this example and below, various phones are eliminated by the regular process of degemination, as described in "Lenition," below.

(iv) There is a voicing assimilation in the same environment as described above:

(9)	a.	kta(h)ix	→	[ktaɣiʃ]

Epenthesis

The most common epenthesis is that of a glide to break up two vowels:

(10)	a.	s-majli + -on	→	smajli**y**on
	b.	s-lo7lo + -on	→	slo7lo**y**on
	c.	mil + a +ik	→	mila**y**ik [HBC:0418]

Sometimes it appears that a glottal fricative is epenthesized:

(11)	a.	ermano + etik	→	ermano**j**etic [HBC:22:03]
	b.	s-ta(h) + ik	→	sta**j**ik

However, I would argue in this case that V-final roots in Tzeltal actually end with a glottal fricative, and loanwords (11a) are normalized to the same pattern. The glottal fricative is either deleted or weakened word-finally, but then shows up when a V-initial suffix follows.

Vowel epenthesis is not attested.

Lenition

(i) All consonants are degeminated. This rule operates after the assimilation rules, as can be see in (7), and below:

(12)	ton + mut	→	tomut
	'rock' + 'chicken'		'egg'

(ii) There are two kinds of vowel deletion in Petalcingo Tzeltal. The first is a strategy for resolving vowel hiatus, which is not well-tolerated in Petalcingo Tzeltal:

(13)	a7i + be + on	→	a7ibon
			'listen to me'

As mentioned above, Petalcingo Tzeltal also uses epenthesis to break up vowel clusters. The exact conditions governing the application of epenthesis versus deletion for vowel hiatus resolution are not clear to me. The *be* + absolutive suffix is the only situation I know of in which a vowel deletes in a vowel hiatus, so one possible generalization is that there is a morpho-phonological rule that acts specifically on the *-be* suffix.[8] Whatever the generalization, the deletion rule seems to be sensitive to possible undesirable homophony: in the combination *-be* + *-el*, the *ee* vowel cluster is not subject to vowel deletion, and instead a glide is epenthesized. The vowel deletion, I hypothesize, is probably blocked by the existence of a participle-forming suffix *-bel*.

[8] Another example could be the transitive imperative formation, described in "Imperative," below, though there the issues are not particularly clear-cut.

Syncope is another phonological operation that deletes vowels in Petalcingo Tzeltal:

(14) sbehelal → sbehlal

The conditions under which syncope occur are not very clear to me.

(iii) The voiced consonants /b/, /l/, and /m/ devoice word-finally, or at a morpheme boundary when not followed by a vowel. For /l/ and /m/, part of the conditioning environment is the quality/aspiration of the vowel preceding (see "Vowels" on page 11, above). The phones /l/ and /m/ are devoiced word-finally only when a long vowel/aspiration/glottal fricative precedes:

(15) a. [jahl̥] *vs* [jahliʃ]
'(he/she/it) fell' '(he/she/it)she already fell'

b. sk^ab → [sk'ap]
'his hand' 'his hand'

c. [swap] *vs* [swabal]
'his bed' 'his bed'

d. [sjam] *vs* [jahm̥]
'he closed it' 'it closed'

It is also possible that /n/ devoices word-finally in casual speech as well. In my data I have one example of this:

(16) jujun winik → [xuxuŋwinik] or [huhuŋwinik]
'every man...'

The following example illustrates an interesting difference between clitics *-ix* (already), *-e*, and *-wan* (evidential), which seems to speak to the consonantal status of the /w/ phone:

(17) a. yahl + ix → [jahliʃ]

b. yahl + e → [jahle]

c. yahl + wan → [jahl̥wan]

It appears that in some words the word-final devoicing is blocked, though the reasons for this are not clear at this point:

(18) tuhl → [tuhl]
'one (person)'

(iv) The ejective velar stop /k^/ reduces to a glottal stop in the environment V_V or word-finally:

(19) a. tak^in → [taʔin]
'metal'

b. lok^ → [loʔ]
'exiting'

Reduplication

Reduplication in Petalcingo Tzeltal generally reduplicates the entire (usually CVC) root, such as:

(20) a. lum-lum
ground-REDUP
'dirty'

b. tson-tson
hair-REDUP
'hairy'

However, there are also cases where a C_1VC_2 root is reduplicated $C_1VC_1VC_2$ (more common), or even $C_1VC_2VC_2$ and C_1VC_2V:

(21) a. s-lo7-lo-y-on (lot = 'lie')
ERG:3-lie-REDUP-EPN-ABS:1
'(he/she) decieves me'

b. nuts-uts-in-a
chase-REDUP-?-IMP
'Get it out of here!' [HBC:1457]

Some of the cases of partial reduplication can be explained by phonological rules prohibiting certain consonant clusters (such as, [tl] in the case (21a), above). This does not, however, account for why the final consonant is not reduplicated in the same example.

Syllabification and Stress

The syllables in Petalcingo Tzeltal generally have obligatory onsets. Branching onsets are common, but branching codas seem to be disallowed, except if we assume that the "vowel-lengthening" /h/ is a segment. Without this assumption the syllable structure looks like this:

(22) (C)CV(C)

If we do assume that the pre-consonantal /h/ is in fact a segment, we need to revise our syllabic structure to include branching codas, since we get examples such as:

(23) jtehk.lum

Stress is one of the phenomena in Petalcingo Tzeltal that is still quite obscure to me. While Haviland (p.c.) suggests that stress in Mayan languages like Tzotzil and Tzeltal falls on the root, Kaufman 1971 and p.c. argues that word-stress in Tzeltal is word-initial. In my experience, clause-level (prosodic stress) in Petalcingo Tzeltal serves to at least partially obscure word-level stress. As a result I do not have much to say about stress in this language.

Morphology

Tzeltal morphology tends to be fairly agglutinating. On the classical index of synthesis (tracing back to Sapir 1921), Tzeltal ranks probably somewhere between the middle and the synthetic end of the scale: including clitics, five (or more) morphemes per word are not uncommon. Polysynthesis (more than one root per word, i.e. incorporation) is unattested. The index of fusion of this language is fairly low: while epenthesis and syncope do serve to

obscure morpheme boundaries, fusion of morphemes of different categories (portmanteau morphemes) are only attested in a few cases (such as in "Ossified Portmanteau Morphemes" on page 50, below).

Morphophonemics

Many Mayanists point out that the canonical shape of Mayan roots is CVC. This is certainly true for Petalcingo Tzeltal: the vast majority of roots are CVC, though some apparently non-compositional CVCVC roots are also found. The table below illustrates the morphological shape of Petalcingo Tzeltal roots, affixes (prefixes and suffixes), and clitics:

Lexical Class	Shapes
roots	CVC, CVCVC
suffixes	-CV, -VC, -CVC, -VC
prefixes	C-
enclitics	-V, -VC, -C
proclitics	C-, V-

Table 3: Phonological Shape of Lexical Types

There is also a significant class of VC roots that, at least on the surface, appear with a root-initial vowel. When not prefixed, these usually appear with a word-initial glottal stop. Aissen 1987 argues that the VC roots have an underlying glottal stop (meaning that they are CVC in the lexicon), and the glottal stop is deleted following an ergative prefix.

Morphological Strategies

The main morphological strategy employed by Petalcingo Tzeltal is suffixation. Most derivation (other than compounding) and inflection is expressed by means of suffixes, as there are very few prefixes in Petalcingo Tzeltal. Reduplication plays a marginal role in this language. Some examples are given below:

(24) a. lot + REDUP → lo7lo
'lie' 'deceive'

b. k^in + REDUP + PLUR → k^ink^intik
'celebration' 'many celebrations (all over)'

c. sak + REDUP → saksak
'white' 'kind of white; almost white'

Infixation (or ablaut, depending on your view of the long vowel issue: see "Vowels," above) occurs as a derivational strategy for deriving verb stems from positional roots, or for inflecting a transitive verb as a middle (middles are discussed in "Antipassives, Passives, and Middles," on page 55, below). Generally, in Tzeltal literature the middle-deriving infix is glossed as /j/, however, with unaspirated vowels it sounds more like /h/ (see "Consonants" on page 9 above). Some examples:

(25) a. nak- → nahk
'seated' 'to sit down'

b. tehk- → tejk
'standing' 'to stand up'

Root Classes

Based on morphological and distributional evidence I distinguish three major open root classes in Petalcingo Tzeltal: nouns, verbs, and positional roots. While many criteria might be applicable, the ones listed below seem the most robust:

(i) Nominal and verbal roots directly form stems that can be main predicates in a clause. Consequently, we may see a bare noun or a verb directly taking absolutive morphology, which a positional root (with no overt derivation) may not do.

(ii) Only nouns may directly form stems that can function as an argument to a (main) clause. Positional (and verbal) roots require derivational processes to form such stems.

(iii) Only nouns take the nominal plural suffix *-etik*.

These criteria yield the following typology of root classes:

	Nominal	**Verbal**	**Positional**
Direct predicate stem	yes	yes	no
Direct argument stem	yes	no	no
Nominal plural morphology	yes	no	no

Table 4: Roots Classes

The more "obvious" criteria for identifying word classes, such as using inflectional markers, are of little immediate help in the identification of word classes, as most types of stems are able to take absolutive cross-reference markers, just like verbs. Ergative markers, which appear on transitive verbs, are homophonous with possessive cross-reference markers, which appear on nouns and noun phrases.

Are There Adjectives in Tzeltal?

In carving up the root pie, I depart from Polian 2003b, who distinguishes a fourth major lexical class: adjectives. Modifiers of noun phrases in Petalcingo Tzeltal are characterized by the *-Vl* suffix, For example:

(26) sak-il winik
white-MOD man
'white man'

However, by all the criteria above, roots that form modifier stems fall into the noun class:

(27) a. sak te winik-e (direct predicate stem)
white DET man-CL
'the man is white'

b. tsak-a me sak-e (direct argument stem)
grab-IMP DET white-CL
'Grab the white one!'

c. ka tsak me sak-etik (nominal plural morphology)
ICMP.ERG:2 grab DET white-PL
'You take the white ones'

Polian 2003b identifies another criterion for nounhood: the ability to be modified by a relative clause. By this criterion too, the stems that form modifiers are nouns:

(28) me sak-e mach^a yakal ta we-7el ...
DET white-CL who PROG PREP eat-PART
'the white one that's eating right now ...'

Finally, though this is uncommon (due to pragmatic awkwardness), many canonical nouns also form modifier stems with the *-Vl* suffix:

(29) chenek^-il waj
bean-MOD tortilla
'bean tortilla'

One could of course argue that the nominal roots that do appear as modifiers with *-Vl* suffix are polyvalent, but this would be adding needless complexity. Thus I conclude that Tzeltal adjectives are in fact nouns.

Polyvalence

Many Mayanists (Haviland 1992, Lois and Vapnarsky 2003, Polian 2003b, Coon 2004) have argued for polyvalence, or root underspecification as a widespread phenomenon in Mayan languages. This seems to contradict the assertion in Dixon 1992 that "each semantic type has a basic or 'norm' connection with a single part of speech." There is one class of Tzeltal roots that does form two types of stems, however, the polyvalence here is not clear-cut. All positional roots regularly derive predicative stems with the *-V_1l* suffix (where *V_1* is the stem vowel). Positional roots also derive verbal stems via various verbalizing affixes; however, a large number of positional roots also derive transitive stems directly, with no affixation. As can be seen from the following table the semantics of the verbs are not readily predictable from the predicative stems formed by the positionals:

Stem	Positional Gloss	Transitive Gloss
nuj	face down	to cover
pak	lying face down with arms out	to fold
lich^	lying face down with arms out, flattened	to press (something) out
ch^ik	inserted (flat or thin object)	to insert (a flat or thin object)
jok^	hanging	to hook

Table 5: Identical Stems as Positionals versus Transitive Verbs

In light of the lack of correspondence of meaning, as well as the fact that affixation is involved in deriving the predicational positional stems in the first place, it is not clear that the term "polyvalence" is appropriate here after all.

Polian identifies a further class of roots which appears polyvalent: these form both verbal stems denoting some action, and a related abstract noun, such as *k^op* (to speak/word), and *ajk^ot* (to dance/a dance). These roots, according to Polian, also may derive other transitive and intransitive verb stems. In Petalcingo Tzeltal this latter process seems to be more common, and little evidence of the kind of polyvalence Polian describes for Oxchuk is in evidence.

Nouns and Nominal Morphology

Nouns, as was stated above, can be both predicates and arguments, that is, no copula is needed for an identity-type clause:

(30) winik-on
man-ABS:1
'I am a man'

Unlike VPs (verb phrases), nouns may not take aspectual markers, but can appear with a tense marker, to be described below in "Tense and Aspect."

Nouns in Tzeltal are inflected for number (singular vs. plural), and sometimes take a "gender" prefix. These are the subjects of the next two subsections. Tzeltal does not exhibit morphological case on nouns.

Number

The nominal plural marker is the morpheme *-etik*:

(31) a. x-7ajaw-etik trensipal
G-lord of the earth-PL principle
'the principal lords of the earth' [HBC:0031]

b. pues ja7 y-7a7tel te kerem-etik
well F/C POSS:3-work DET boy-PL
'well, the boys' work' [HBC:0136]

The unmarked nominal number category is singular, and as in many Mayan languages (and unlike English), in Tzeltal, the use of the plural marker on noun (or plural verb agreement) is optional—lack of plural marking does not mean that the referent cannot be understood as plural:

(32) spisil 7a cha7-muh-Ø bahel me j-7onkonak-etik
all PT again-climb-ABS:3 DIR:away DET G-frog-PLUR
'Todos subieron otra vez; All (the frogs) climbed away again' [PMP-FS2:151]

(33) a. laj s-leh-ik te ventana-je
PFV ERG:3-search-PL DET window-CL
'They searched the window'

b. ots s-k^ehlu-Ø ta fwera
enter watch PREP outside
'began to look outside'

c. i mayuk binti laj y-il-Ø
and NEG.EXIST what PFV ERG:3-see-ABS:3
'and there was not anything that they saw'
[AGP-FS:019-021]

(34) este pisil 7a lok^-ik ta ahn-el me xux-e7
this all PT exit-PL PREP escape-PART DET wasp-CL
'All the wasps came out' [PMP-FS2:081]

The example in (32) shows a verb with no plural agreement with a plural nominal argument; if plural verbal agreement was obligatory, we would expect to see it here. Example (33) is a stretch of connected discourse from Appendix A. The first clause (33a) shows that the subject is plural (a boy and his dog), however, in the third clause (33c), the plural agreement is not present. The third example (34) shows a plural subject (with plural verb concord) but without the plural marking on the noun phrase.

Gender

There are two noun prefixes, *x-* and *j-*, that appear on some nouns, but always in complementary distribution; that is, a noun may take only one of these prefixes. These prefixes are always available with person's names, *x-* for women's names and *j-* for men's names:

(35) a. me **x**-Martaj-e ch^a way nax x-k^ot
DET **x**-Marta-CL two sleep only ICMP-arrive
'la Martha solo dos noches estuvo; Marta only stayed two nights' [N:0965]

b. ta s-pat s-nah te **j**-Laloj-e
PREP A:3-back A:3-house DET **j**-Lalo-CL
'At the back of Lalo's house' [PMO-Dir:0027]

These prefixes are also available with some (but not all) animal names, and a particular animal name goes with a particular prefix. There are also pairs of morphologically similar animals (such as frog and toad) where one member of the pair selects one prefix, and the other member selects the other prefix:

(36) a. j-onkonak *vs.* x-chuch^
j-frog x-toad

Haviland (p.c.) suggests that these prefixes are remnants of the gender system in Mayan, and the distribution of the prefixes supports this hypothesis. The gender prefixes are always optional, though the gender of the noun, in the case of animals, is invariant. Some nouns never take a gender prefix.

Pronouns

As Tzeltal is a pro-drop language, personal pronouns are only used when stressed, or in short, presupposing questions/assertions such as "and you?" The full pronominal paradigm is as follows:

Person	Singular	Plural
1st	jo7on	✘
inclusive	✘	jo7otik
exclusive	✘	jo7on(r)yotik
2nd	ja7at	ja7ex
3rd	ja7	ja7tik

Table 6: Pronominal Paradigm

The pronouns in Tzeltal could be an analyzed as the morpheme *ja7* with a Set B marker, and root vowel harmony to account for the *ja7* / *jo7* alternation in 1st-person (see "Topic and Focus," below for more information).

Inherent Possession and Getting Around It

While possessive constructions are discussed in detail in "Possessive Constructions," below, it must be noted in this section that some nouns (such as body parts) are obligatorily possessed, while others are normally not possessed at all. While I am unable go into great detail with respect to possession here (see Haviland 1981 an analysis of Tzotzil), I would like to note that some form of the *-Vl* morpheme can be used to change the "inherent" possession status of a noun phrase:

(37) a. k^ax mi me s-te7-el me spamlej
very much DET ERG:3-tree-PCHG DET valley
'tiene bastante arbol el valle; the valley has many trees' [N:1506]

b. s-behl-al
POSS:3-path-PCHG
'Its path' (of the house, the village, etc)

Thus, for example, in (37a) a normally unpossessed noun appears possessed (by an unusual type of possessor, an inanimate object, if a valley may be called such). This appears to require the use of a possession-changing suffix on the possessed noun.

A standard way of responding to "thank you" in Tzeltal provides a nice "minimal pair" of sorts:

(38) a. mayuk wokol
NEG.EXIST trouble
'No problem'

b. mayuk s-wokol-il
NEG.EXIST POSS:3-trouble-PCHG
'No problem'

The second of the above examples features a possessed version of the noun, which, apparently, is generally unpossessed. In order to make it a possessible noun, a *-Vl* suffix is used.

Another interesting example of the "de-possession" use of the *-Vl* suffix is the word *chu7il*, which is an affectionate term to refer to an older, unmarried woman. *chu7* means "breast" and is normally obligatorily possessed, as are most body parts. *chu7il*, then, would be a disembodied breast of sorts.

Verbs

As described above, verbs, like nouns, directly form predicate stems, but cannot directly form stems that can be used as arguments to a predicate (though see Chapter 3 where I explore an alternative analysis). In the following sections I will review some aspects of Petalcingo Tzeltal verbs.

Causatives

Petalcingo Tzeltal features one morphological causative which is formed via the *-es/-tes* suffix. The rules governing the distribution of the two allomorphs of this suffix are not clear to me at this point. This causative is quite productive, and most intransitive verbs can freely take this suffix to form regular transitive verbs:

(39) a. laj y-ots-es-Ø
PFV ERG:3-enter-CAUS-ABS:3
'He/she/it put it (in)'

b. laj s-yahl-tes-on
PFV ERG:3-fall-CAUS-ABS:1
'He/she/it made me fall'

The causative may not appear on transitive verbs. This may be related to the fact that Tzeltal does not have tri-valent verbs, even in applicative constructions.

The semantic range of the causatives is all the way from direct causative (such as "physically compel") to indirect causation (such as persuasion). Permissive is not one of the possible meanings of this construction, except in a very narrow sense: example (39b) may mean "he let me fall" in a situation where one person lets go of another's hand and the second person falls, but (39a) may not mean "he gave me permission to enter." True permissives are expressed via periphrastic constructions using matrix verbs such as "say," or "give" (for "allow to eat," for example).

Transitivizers

The suffix *-ta* is used in Petalcingo Tzeltal to increase the valence of an intransitive verb. The meaning of the resulting transitive verb is at times quite predictable, and idiosyncratic in other instances. Both are exemplified below:

(40) a. ma-x laj s-bejen-ta-bel-Ø te wakax-e
NEG-ICMP PFV ERG:3-walk-TRANS-bel-ABS:3 DET cow-CL
'No lo termina de caminar la vaca; She/he does not finish walking the cow' [N:0486]

b. te pox-e laj s-kol-ta-y-on
DET medicine-CL PFV ERG:3-grow-TRANS-EPN-ABS:3
'The medicine helped me'

Verbalizers

The suffix *-in* seems to be one of the morphemes that used to derive verbs from non-verbs. Consider the following:

(41) a. yakal-on ta k^ayoj
PROG-ABS:1 PREP song
'I am singing'

b. k^ayoj-in-ex
song-V-ABS:2.PL
'You (pl) sang'

(42) a. ay waj
EXIST tortilla
'There is/are tortilla(s)'

b. ay-in-on ta Petalcingo
EXIST-V-ABS:1 PREP Petalcingo
'I was born in Petalcingo'

This suffix seems to regularly produce intransitive stems from non-verbal roots. It appears that this suffix can also be used to increase the valence of an intransitive verb:

(43) a. te ma-ba k-och-in-tik-ix me wokolil
COMP NEG-ba ERG:3-enter-TR-PL-already DET suffering
'de que no nos metemos con los sufrimientos ya;
that we don't put ourselves in trouble' [N:2015]

b. laj s-laj-in-ik ejuk laj s-tup-ik ejuk
PFV ERG:3-finish-TRANS-PL also PFV ERG:3-extinguish-PL also
'tambien ya lo terminaron; they already stopped those too' [Fra1:044]

Another suffix, *-oj*, may also produce verbal stems, but at present I don't have enough information to fully describe it. Additionally, there are ways of verbalizing positional stems to be discussed in "Positionals," below.

Nominalizations

Slocum 1948 describes a bewildering number of nominalizations for the Oxchuk variant of Tzeltal. Not all of these have been systematically investigated for Petalcingo Tzeltal, thus I will only make reference to those that are known to me to occur. Below (in Chapter 2) I will argue that the participle-forming suffixes *-el* and perhaps *-aw* should be analyzed as nominalizers, their function appears to be more syntactic and less derivational (perhaps akin to some English gerunds). Therefore I will not describe the participle-forming suffixes in this section.

Agentive (*j-*)

The *j-* prefix, perhaps related to the putative gender marker (see "Gender" on page 20, above), is used to derive nouns which describe a person involved with the action of the verb from participle-like forms. Some examples are shown below:

(44) a. j-mil-aw
AGNT-kill-PART
'killer'

b. j-pas-aw
AGNT-do-PART
'curer'

These prefixes have been termed "agentive" in the Mayan literature, though this may be a misnomer, as they seem also to appear on nominalizations (participles) that are patient oriented:

(45) a. j-mil-el
AGNT-kill-PART
'killed person'

b. j-maj-el
AGNT-hit-PART
'hit person'

Place where *X*

There are two nominalizations in Tzeltal that derive a noun that refers to a place where the activity denoted by the verb occurs. For transitive verbs two nominalizations are available: *-ib* patient-oriented (a place where X is done to P) and *-ibal* agent-oriented (a place where A does X). To wit, the following "minimal pair" may be adduced:

(46) a. s-we7-ib mut
POSS:3-eat-N chicken
'place where chickens eat; trough'

b. s-we7-ibal mut
POSS:3-eat-N chicken
'place where chickens are eaten; fried-chicken restaurant'

Intransitive verbs may take either nominalizer, perhaps depending on the semantics of the verb (thereby making a distinction between unergative and unaccusative verbs), though it is possible that the same verb may appear in both nominalizations. Some examples:

(47) a. yahl-ib ja7
fall-N water
'waterfall'

b. way-ibal
sleep-N
'bed' [PMP-FS2:0015]

c. nak-aj-ibal
sit-V-N
'chair' [PMP-FS2:008]

There also appear a number of secondary uses, where the resulting nominal has nothing to do with a place. These are shown below:

(48) a. sut-ib me k^op-e
return-N DET word-CL
'answer to the utterance' [SP:0247]

b. y-ahch^-ib k-7otan-tik
POSS:3-wet-N POSS:1-heart-PL
'moistener of our hearts (liquor)' [HBC:0171]

c. y-al-ib
POSS:3-child-N
'his/her daugher-in-law' [SP:0669]

d. ma7y-uk s-laj-ibal
NEG.EXIST-IRR POSS:3-finish-N
'it does not have an end' [N:2321]

While it is possible to interpret the examples (48a) and (48b) above as somehow place-related (noting that in (48b) it is certainly not the hearts that are doing the moistening), the (48c) example nominalizes an already nominal stem, and the result is not at all place-related.

It may be tempting to analyze the *-ibal* suffix as the *-ib* suffix plus the possession-changing suffix *-Vl*. Semantically this analysis would pose no problems, as the concept of "possession" is a rather fluid one, both in the world's languages and in Tzeltal. However, formally, the fact that the pre-/l/ vowel is completely invariant in the *-ibal* suffix contradicts this analysis.

-ol

Slocum 1948 describes *-ol* as a nominalizer for certain verbs. This seems to be the case for Petalcingo Tzeltal, though it is difficult to say specifically what kinds of verbs can take this nominalizer, or to characterize (semantically) the kinds of nouns it produces. Some examples are shown below:

(49) a. s-jel-ol
POSS:3-change-N
'his substitute' [HBC:0681]

b. toj-ol
pay-N
'pay; money; price'

c. tsob-ol
gather-N
'many'

Positionals

Positionals constitute a class of roots particular to Mayan languages. They encode spatial configurations and relations, sometimes with a bewildering degree of specificity (see Haviland 1992). In Petalcingo Tzeltal the majority of positional roots do not directly form inflectable stems, though some do, perhaps as a result of polyvalence (as described in "Polyvalence" on page 18, above).

Positional roots form two kinds of primary stems: predicational and verbal. The predicational stems are formed via the *-V_1l* suffix, where *V_1* is the root vowel:

(50) a. tey laj jok^-ol s-na xux-7a
there EVID hang-PRED POSS:3-house bee-DIST
'There was a bees' nest hanging there' [PMP-FS2:066]

b. ja7-in winik-in-i nak-al
F/T-DEM man-DEM-PROX seat-PRED
'This man is seated'

c. luch-ul-ix 7a me ala wits^ kerem-e
perch-PRED-already DIST? DET DIM small boy-CL
ta y-ajkol-al me te7e
PREP POSS:3-top-PCHG DET tree-CL
'And the small boy was perched already on top of the tree' [PMP-FS2:141]

For many Petalcingo Tzeltal speakers these predicational positional stems can only be predicates: when used to modify a noun they must be secondary predicates, and thus cannot appear directly before the head nouns after the determiners, where regular modifiers appear. For some, however, these *-V_1l* positional stems can be modifiers as well (like the perfect verb

forms, see "Perfect and Resultative Constructions" on page 58, below) but they are defective as such: most modifiers in Petalcingo Tzeltal appear between the possessive marking and the head noun, while the positional modifiers, even for the speakers that accept them, cannot do so.

The second kind of stem the positional roots form are verbal stems. Here there are many options for the Tzeltal speaker, and I am not (yet) in the position to describe them in the detail they deserve; thus what follows is rather incomplete.

There seems to be at least two verbalization affixes that form intransitive stems from positional roots. The most common of these is the *-l* suffix:

(51) nak-l-an
sit-V-IMP
'Sit down!'

John Haviland (p.c.) suggests that this form may be analyzed as *nak-al-an* (sit-PRED-IMP), with a syncope deleting the vowel. This is attractive since it would avoid postulating another verbalizer (*-l*). However, the rules of Tzeltal vowel syncope are not entirely clear to me,[9] so I will avoid committing to either analysis, and provisionally continue to gloss *-l* as a verbalizer.

Also a combination of the *-j-* infix and the suffix *-aj* seems to be available:

(52) najk-aj-on
sit.V-V-ABS:1
'Me senté; I sat down'

Of the two, the latter (*-j-* + *-aj*) seems to produce more verb-like forms, based on the fact that these stems are inflected more like regular intransitive verbs (*-el* in the progressive):

(53) a. yakal-on ta nak-l-ej
PROG-ABS:1 PREP sit-V-PART
'I am sitting down'

b. yakal-on ta najk-aj-el
PROG-ABS:1 PREP sit-V-PART
'I am sitting down'

c. yakal-on ta way-el
PROG-ABS:1 PREP sleep-PART
'I am sleeping'

[9] There is more at stake here than syncope rules, however. The *nak-al-an* (sit-PRED-IMP) analysis implies that imperatives may appear on non-verb forms. It seems that this is not the case, at least with nouns:

(1) * winik-an
man-IMP
'Be a man!'

This does not necessarily mean that imperatives cannot appear on predicative positionals. It is also possible that *-an* is not just an imperative marker. For an example see (54).

Example (53c) shows the standard way of forming progressive constructions with intransitive stems: the verb takes the nominalizing participle suffix *-el*. The *-j-* + *-aj* positional verbal stem (53b) inflects similarly, while the *-l* form takes a distinct *-ej* suffix (53a).

Transitive stems may be produced in two ways: from the verbalized intransitive stems via a causative suffix *-(t)es* (described above), or via the *-j-* infix in combination with the suffix *-an*:

(54) s-najk-an-on
ERG:3-sit.V-V-ABS:1
'Me sentó; He/she/it seated me (perhaps by force)'

Compounding

Petalcingo Tzeltal has productive lexical compounds. For example:

(55) tomut (ton + mut)
'egg' (rock + chicken)

(56) tultuxtak^in (tultux + tak^in)
'helicopter' (dragonfly + metal)

Petalcingo Tzeltal also has what might be called "syntactic" compounds such as *jol na* ("roof," literally "head house"), whose constituents are transparent to syntactic processes. Compare:

(57) a. k-tomut (ton + mut)
POSS:1-egg
'his egg'

b. s-jol k-na
POSS:3-head POSS:1-house
'my roof', or 'the roof of my house'

In (57a), a "regular" compound is possessed, and the possessive marker appears on the outside of the word/phrase. In (57b), a "semantic" compound, the possessive marker that applies to the entire compound appears only on the head noun of a formally possessive construction, with the possessive marker on *jol* cross-referencing the head noun *na*.

Minor and Functional Classes

This section describes the minor and the functional word classes of Petalcingo Tzeltal, namely the adverbs, relational nouns, and prepositions.

Adverbs

Adverbs are a rather small class in Petalcingo Tzeltal. Some of these are listed in table below:

Lexical Item	Meaning
wen[10]	intensifier
cha7 (and other numerals?)	twice (thrice, etc)
woje	yesterday
pajel	tomorrow
namal	far
k^un	slowly
ta ora (or *ora*)	quickly
tulan	hard
tibil	late

Table 7: Adverbs

I have including *ta ora* in the above table because *ora* seems to be a contraction derived from *ta ora*. Other expressions that would be expressed by adverbials in English also appear with the preposition *ta*. One example of such adverbial expression is *ta lek*, "well."

Relational Nouns

Relational nouns are a class of lexical items in Mayan languages that tend to express spatial relations which are expressed by prepositions in languages like English; concepts such as "above," "below," etc. These relational nouns (RNs) are obligatorily marked for possession, the grammatical possessor being the nominal that corresponds to the complement of a preposition in English:

(58) a. li7 ta aw-ahk^ol-al-i x-7ajaw-etik
here PREP POSS:3-top-PCHG?-PROX G-lord of earth-PL
'here above you, lords of the earth' [HBC:0118]

b. ta y-ut na
PREP POSS:3-inside house
'inside the house'

A list of some relational nouns is given below:

Relational Noun	Meaning
-ut(il)	inside
-ah(l)an(il)	below
-ahk^ol(al)	above

Table 8: Relational Nouns

[10] Both *wen* and *(ta) ora* appear to be loan words from Spanish ("good" and "hour" respectively). However, they seem to be quite integrated into the Petalcingo Tzeltal grammar so I do not see any reason to strike them from my analysis.

Frequently the relational nouns appear with what looks like a possession-changing *-Vl* suffix, though the semantics of its usage are obscure to me. Thus the native speakers consider (59) a paraphrase of (58b):

(59) ta y-ut-il na
PREP POSS:3-inside-PCHG? house
'inside the house'

The relational nouns can be termed such because they do in fact exhibit many nominal characteristics: they follow a preposition, take Set A markers, and do not co-occur with aspectual markers.

Prepositions

Many Mayan languages (Chol is one example) feature only one preposition—historically related to the main preposition in Tzeltal, *ta*. This preposition generally introduces sources, goals, and locations:

(60) a. li7 ta a-sit-i
here PREP POSS:2-eye-PROX
'Here in (front of) your eyes' [HBC:0117]

b. x-boh-on ta s-na diyos
ICMP-go-ABS:1 PREP POSS:3-house god
'I am going to church'

In addition this preposition has as a semantically bleached, purely grammatical function of introducing nominal-like complements to formally intransitive verbs (such as in intransitive progressive constructions):

(61) yakal-on ta beh-el / a7tel / te7
PROG-ABS:1 PREP walk-PART / work / stick
'I am walking / working / having sex'

Contra the one preposition assumption, Polian 2003b points out that Tzeltal does have another preposition, namely *sok*. In Petalcingo Tzeltal it introduces comitative and instrumental adjuncts:

(62) a. ala wits^ kerem sok s-ts^i7
DIM small boy with POSS:3-dog
'a small boy and his dog...' [PMP-FS2:0002]

b. te ants-e laj s-mil-Ø mut sok kuchiyo-h-e
PREP woman-CL PFV ERG:3-kill-ABS:3 chicken with knife-EPN-CL
'The woman killed the chicken using a knife'

In this dual function *sok* is reminiscent of the English preposition "with", or the Russian instrumentative case, which is used (alone) to mark instrument arguments and (following a preposition) comitative arguments.

There is yet another preposition, *-u7un,* which is sometimes analyzed as a relational noun. Like a relational noun, it obligatorily takes Set A inflection, however, unlike relational nouns,*-u7un* never follows a preposition. Thus I argue it is more appropriate to analyze it as a preposition that cross-references its complement. That such a preposition would appear in

an overwhelmingly head-marking language should be no surprise, and thus the preposition analysis of *-u7un* would not be typologically unexpected.

Semantically *-u7un* is used to express concepts like "for," and "by," and with third-person cross-reference can introduce "because" clauses:

(63) a. laj 7a k^ot s-nak^ s-ba
PFV PT arrive ERG:3-hide POSS:3-REFL
me y-u7un xux-ul-tik-e7
DET? POSS:3-for hornet-PCHG?-PL-CL
'[the doggie] came and hid himself from/because of the hornets'
[PMP-FS2:0099]

b. bin y-u7un?
what POSS:3-for
'why? what for?'

-u7un is also used to introduce a possessor which for one reason or another cannot be marked via the usual cross-reference on the possessed noun. This situation frequently occurs in an expression of lack of possession, in a construction such as the following:

(64) mayuk k-u7un ts^i7
NEG.EXIST POSS:1-for dog
'I don't have a dog'

Literally (64) means "there is no dog to/for me."

-u7un is also used to introduce "extra" (but still required) arguments in an abilitative construction. While an example is given below, it is discussed in a more detail in "The Participle-Taking *-u7un* " on page 110 in Chapter 2.

(65) ma x-u7 k-u7un
NEG ICMP-able POSS:1-for
'I can't do it'

Syntax and Clause Structure

Edward Sapir claimed that "it must be obvious to anyone who has thought about the question at all or who has felt something of the spirit of a foreign language that there is such a thing as a basic plan, a certain cut, to each language" (Sapir 1921). Baker 1996 loosely translates the germ of this idea into P&P (Principles and Parameters, the Chomskyan-style linguistic theories dating back to Chomsky 1981) through the notion of macro-parameter, such as his polysynthesis parameter. In this section I discuss a few features of the "basic plan" of Petalcingo Tzeltal, which, while not as pervasive as Sapir's and not as technical as Baker's, seem to underlie the principles of Tzeltal grammar.

The first of these is the notion is that an absolutive cross-reference can appear on just about any member of the open classes of words in Tzeltal. This means that just about any stem can be a predicate:

(66) a. s-maj-on
ERG:3-hit-ABS:1
'He hits/will hit me'

b. winik-on
man-ABS:1
'I am a man'

c. sak-on
white-ABS:1
'I am white'

d. ay-on
EXIST-ABS:1
'I exist'

e. nak-al-on
seated-PRED-ABS:1
'I am seated'

Given the fact that the third-person absolutive marker is Ø, it is not clear that regular arguments of predicates do not in fact bear the absolutive cross reference, such as:

(67) te winik-Ø-e laj s-mil-Ø te ts^i7-Ø
DET man-ABS:3-CL PFV ERG:3-kill-ABS:3 DET dog-ABS:3
'The man killed the dog'

This idea receives some support from the fact that secondary predicates in Petalcingo Tzeltal must bear an absolutive marker which cross-references the argument they are predicating (see "Secondary Predicates" on page 68, below).

In Baker 2001, in fact, it is argued that secondary predication is exactly how arguments are licensed in Warlpiri-type languages in a way compatible with the Jelinek's Pronominal Argument Hypothesis (PAH), first articulated in Jelinek 1984. I do not currently adopt a stand on this issue for Petalcingo Tzeltal.

The second principle we can identify for Tzeltal is the radically different treatment of transitive and intransitive verbs, which manifests itself in inflectional marking (transitive verbs take ergative markers, while intransitives do not), unmarked aspect interpretation (perfective for intransitive, incompletive for transitive), imperative formation, and other aspects of grammar. Furthermore, as a transitive verb is derived from an intransitive one, or as a transitive verb is inflected to reduce its effective valence (through passives, anti-passive, etc), Tzeltal grammar treats the new word in a way appropriate to its effective valence, rather than the original root type. This pattern is very robust across Tzeltal grammar, though interesting deviations will be described below. I explore some possible solutions for this puzzle in Chapter 2.

Word Order, Pro-Drop and Head/Dependent-Marking

Like other Mayan languages, Tzeltal is a thoroughly head-marking language, in the terms of Nichols 1986. Nichols observes that some languages seem to mark grammatical relations on the head of the phrase (agreement on verbs, possessor cross-references on the possessed noun, prepositions that agree with their complements, etc), and others mark grammatical relations on the dependents (such as case marking in nouns, both in the verbal phrase, as in nominative/accusative, and in the noun phrase, as with genitive case marking). In Tzeltal, both at the phrasal level (possessive constructions) and at the clausal level (predicates), the arguments are cross-referenced on the head. There is also a preposition that obligatorily

cross-references its arguments, as well as relational nouns (described above) which do the same—both of these must be classified as instances of head-marking.

Like many other head-marking languages, Tzeltal allows pro-drop in almost all positions. Pro-drop is a term for the phenomenon whereby a noun phrase (especially a pronoun) can be omitted from a (finite) clause without causing the sentence to become ungrammatical. Usually this phenomenon is considered to be conditioned by rich (verb) agreement morphology (such as in Spanish), although some pro-drop languages (such as Chinese) do not feature any agreement. In Tzeltal any argument of any predicate may be freely omitted from the clause, as well as the possessor in a possessive noun phrase, or the complement of a "relational noun"/inflected preposition. Thus an inflected verbal word can stand alone as a complete utterance. This is a matter of some importance to the word-order determination discussed immediately below. The one exception to the free pro-drop is the complement of the preposition *ta*, which may never be omitted. This seems to lend support to those theories of pro-drop that identify two types of pro-drop, the agreement type and the non-agreement (i.e. Chinese) type. Particularly striking is the "minimal pair" of *-u7un* (preposition with agreement, as I argue above) which allows pro-drop, and *ta* (a preposition without agreement), which does not.

The existence of "basic" word order in Tzeltal is a matter of some controversy. Dayley 1981 (following other Mayanists) suggests that no single basic constituent order exists. Robinson 2002, working with the Tenejapa dialect, disagrees, and on the basis of statistical evidence from texts argues for VOS as the basic order. Polian 2003b offers a different account for the Oxchuk variant. He finds that VSO is the unmarked word order, even though VOS is more common. This pattern, he argues, is due to the fact that agent arguments are generally more topical, and the more topical NP (noun phrase) tends to appear to the right. Thus, while VOS is statistically more common, is not the unmarked word order.

The determination of basic word order is made more difficult by the extensive pro-drop in Mayan languages. In a small Petalcingo Tzeltal text with 37 transitive clauses, only eleven (29%) featured two overt arguments:

Transitive		
Clause	**#**	**%**
Vt P	16	43%
A Vt P	9	24%
Vt	7	19%
Vt P A	2	5%
A Vt	2	5%
Vt A	1	3%
Total	**37**	**100%**

Intransitive		
Clause	**#**	**%**
Vi S	20	45%
Vi	13	30%
S Vi	11	35%
Total	**54**	**100%**

Table 9: Occurance and Order of Arguments in PMP-FS2

The rarity of two overt arguments in transitive clauses is in line with what is found by DuBois 1987 for Sacapultec Maya. However, the sample given seems to suggest that VOS is more common than VSO (I would hold that non-verb initial word orders are derived by fronting of a constituent), perhaps owing to the factors that Polian 2003b cites. For the remainder of this study I will assume that if there is a basic word order in Tzeltal it is verb-initial and moreover, that it is probably VOS.

Grammatical Relations, Ergativity, and Possessor Marking

Tzeltal (like most other Mayan languages) marks grammatical relations by cross-referencing the verbal arguments on the verbal word: person, number, and inclusive/exclusive distinctions (in the 1st-person plural) are marked. This cross-referencing system falls along an ergative/absolutive pattern. Ergativity is usually defined as a phenomenon in a language whereby the only argument of an intransitive clause (the subject) is marked identically to the patient argument of the transitive clause. Dixon 1994 popularized the terms S, A, and O to refer to arguments of transitive and intransitive clauses; especially in discussions of ergativity. In this nomenclature, S stands for the subject, or the only core argument of an intransitive clause, while A (agent) and O (object) stand for the most agent-like and the most patient-like core arguments of an intransitive clause respectively. The case system (that is, what's left of it), word order, and agreement in English are organized along nominative/accusative lines, where the subject of an intransitive clause (S) is marked identically to the agent of a transitive clause (A), as illustrated below:

(68) a. **he** punt**s**
S verb

b. **he** hit**s** **him**
A verb O

As can be seen from the examples above, English features identical marking for A and S arguments (*he*), with the O argument being in a different case (*him*). Likewise, the verb agrees with the third-person singular A or S argument (the *-(e)s* suffix), but not the O argument. Both A and S precede the verb, while O follows.

Tzeltal, on the other hand, features ergative patterns of core grammatical relations, where O (and not A) is marked identically to S. While there is no (overt) case-marking in Tzeltal, the transitive verb agrees with both arguments, with the S agreement being identical to the O agreement:

(69) a. laj **s**-maj-**at**
PFV AGENT:3rd-hit-PATIENT:2nd
'He hit you'

b. bejen-**at**
walk-SUBJECT:2nd
'You walked'

The argument marking of English versus Tzeltal can be diagrammed as follows:

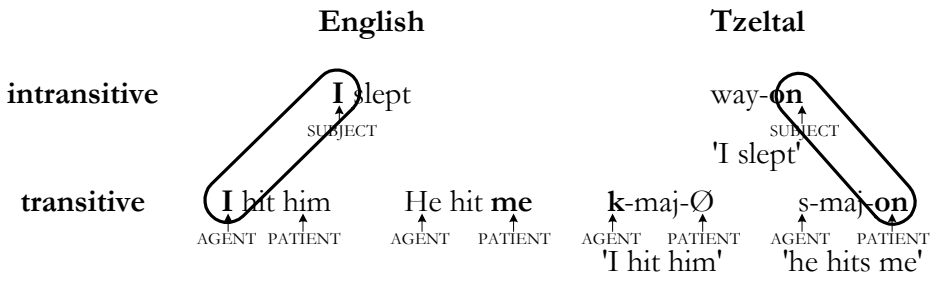

Figure 5: Grammatical Relations in English versus Tzeltal

In accusative languages the S/A argument marking is called "nominative" while the O argument marking is called "accusative." In ergative languages the A marking is called "ergative" and the S/O marking is called "absolutive." This terminology can be diagrammed as follows:

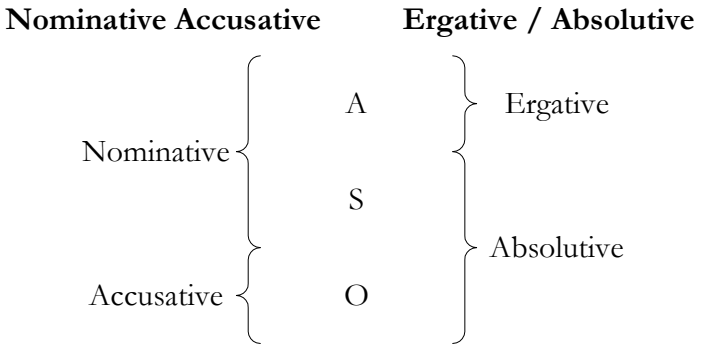

Figure 6: Accusative and Ergative Case Marking / Agreement

In Tzeltal (and other Mayan languages), the markers that cross-reference the agent argument of a transitive verb (ergative) are identical to the markers that cross-reference the person/number of a possessor on the head noun of a possessive construction:

(70) a. k-maj-at
ERG:1-hit-ABS:2
'I hit you'

b. k-ts^i7
POSS:1-dog
'my dog'

Due to their homophony, the ergative and possessive cross-reference markers together are called "Set A" in the Mayan literature, while the absolutive markers form "Set B." Henceforth, in interlinear glosses, rather than using terms ERG, ABS, and POSS, I will use A (Set A) and B (Set B) instead.

The complete set of Set A markers includes morphemes that attach at the right edge and left edge of the constituent in question. The morphemes that attach at the left edge mark person, while those at the right edge mark the number as well as the inclusive/exclusive distinction for 1st-person plural. The complete paradigm is as follows:

	Person	Plural
1st	k- / j-	✘
inclusive	✘	-tik
exclusive	✘	-(r)yotik
2nd	a- / aw-	-(t)ik
3rd	s- / y-	-(t)ik

Table 10: Set A markers

While Set B markers are as follows:

	Singular	Plural
1st	-on	✘
inclusive	✘	-otik
exclusive	✘	-on(r)yotik
2nd	-at	-ex
3rd	-Ø	-ik

Table 11: Set B markers

The reason the two tables above are laid out slightly differently is because the slicing up of the agreement pie into (only) Set A and Set B may be called into question on the basis of their formal properties.[11] First of all, Set A markers occur on both edges of the word/phrase with person agreement at the left edge, and number agreement at the right edge, whereas Set B occurs only at the right edge. Secondly, Set A person marking on transitive verbs is obligatory: it cannot be left unexpressed. This is not true for Set A number agreement, or Set B agreement. This approach would yield an opposition between ergative/possessive person marking on one hand and ergative number + absolutive person and number marking on the other. On the basis of the kind of arguments this agreement cross-references, we may want to then subdivide the right-edge morphemes into ergative/possessive and absolutive agreement, yielding a tri-partite system. However, if this is done without further analysis, some formal facts may be overlooked: there is evidence that Set A number agreement and Set B (absolutive) agreement are in competition at the right edge of the word in some circumstances, i.e. the two cannot co-occur:

(71) a. s-maj-otik
A:3-beat-B:1.INCL
'He/they beat us (inclusive)'

b. s-maj-onyotik
A:3-beat-B:1.EXCL
'He/they beat us (exclusive)'

[11] I am thankful to John Haviland for this suggestion.

c. s-maj-ik
A:3-beat-PL
'They beat him/them'

d. * s-maj-otik-ik
A:3-beat-B:1.INCL-A:3.PL
'They beat us'

e. * s-maj-onyotik-ik
A:3-beat-B:1.INCL-A:3.PL
'They beat us'

The first three examples show plural object and plural subject marking in transitive verbs. As is demonstrated by examples (71d) and (71e), the two cannot be combined in this case. The fact that Set A and Set B plural markers cannot co-occur results in ambiguity with respect to the number of participants as shown in examples (71a), (71b), and (71c).

Moreover, even some combinations of ergative person cross-reference markers and absolutive plural markers result in grammaticality:

(72) * k-mil-ik
A:3-kill-PL
'I killed them'

On the other hand, stacking of some Set A and Set B markers at the right edge of the verb is allowed:

(73) a. s-maj-on-ik
A:3-beat-B:1-.PL
'They beat us'

b. k^an s-ten-on-ik ta transito
want A:3-push-B:1-PL PREP transit
Me iban a obligar con el transito;
(They) were going to make me [take the] transit' [N02:2468]

Unfortunately I am unable to fully analyze of the interactions of the Set A and Set B markers in the present work. It is worth noting, however, that the ambiguity resulting from the ban on some Set A/Set B stacking ban can be resolved by another plural agreement morpheme, *la*. This is a marginal mechanism used to explicitly specify the plural patient argument of a transitive verb:

(74) a. laj k-mil-tik-la
PFV A:1-kill-PL-PL
'We killed them'

b. laj k-mil-tik-la-ryotik
PFV A:1-kill-PL-PL-A:1.PL
'We (excl) killed them'

Here *la* seems to be another plural marker. Its syntax is obscure to me, but it does appear in other textual examples, albeit rarely:

(75) k^ax t^uj-tik-la-bil te bi ay y-u7un-ik-e7
very beautiful-PL-PL-PASS? COMP what EXIST A:3-for-PL-CL
'It was very beuatiful what they had' [N02:0101]

Regularly, the word for beautiful is *tujbil*, however in (75) it is interrupted by two plural markers: first the third-person absolutive *-tik*, followed by *-la*. This strategy does not seem very wide-spread, as it rarely appears in text; therefore, I have nothing further to say about it, other than the fact that for some speakers some variants of this construction are not grammatical.

As shown in Table 11 on page 35, above, the Set B 3rd-person singular agreement is Ø. It is commonly assumed in Mayan linguistics that the 3rd-person absolutive agreement is present in the appropriate circumstances, but its phonological realization is null. In my glosses throughout this thesis I add "-Ø" to the target language text and "-B:3" to the morpheme-by-morpheme gloss to indicate instances in which I believe there to be null absolutive agreement.[12]

Classically, for Tzeltal (and closely-related Tzotzil) the Set A person-marking morphemes have been divided into a pre-consonantal series and a pre-vocalic series. However, in Petalcingo Tzeltal the distinction cannot be made on this basis: in Table 10, above, for 2nd- and 3rd-person markers the first morpheme is indeed the pre-consonantal one and the second is pre-vocalic. However, for the 1st-person morphemes, *k-* is the shape of the morpheme in all cases, except when the stem that follows begins with a voiceless or ejective velar stop ([k] or [k^]).[13] Therefore, the terms "pre-consonantal" and "pre-vocalic" simply do not apply in the case of 1st-person Set A marker.

With respect to the first-person ergative marker, it seems likely that the distribution of /k-/ and /j-/ is the result of contact with Chol: in Chol the Set A markers have an identical distribution to Petalcingo Tzeltal, and, moreover, no other known dialect of Tzeltal features this distribution of 1st-person ergative morpheme. All known dialects of Tzotzil seem to have pre-C/pre-V distribution of 1st-person Set A markers as well. Normally this would suggest that the more common /k-/ and /j-/ distribution is a shared retention from Proto-Tzeltal-Tzotzil, and that the Petalcingo distribution is an innovation; however, Ara 1571 only notes the stop as the pronominal reference marker in the first person (ergative).[14, 15] As the dialect with which Fray Domingo de Ara was working is rather far from Petalcingo (Copanaguastl is about 30km south of Aguacatenango) and the Aguacatenango dialect appears to be rather different from many of the northern dialects of Tzeltal, it seems likely

[12] This practice is not followed throughout with respect to the more controversial null agreement I postulate in this and the following chapters, such as predicative positionals, and all intransitive auxiliaries.

[13] The /k/ ~ /j/ alternation in the first person ergative marker cannot be a result of a phonological dissimilation rule, as other *kk* clusters simply delete by the degemination rule described above.

[14] "Est autem advertendum q. ista pronomina: *q*, *a*, *z*, semper ponitur in principic verbi seu nominis et numquam in fine vg., *qtat*: mi padre; *atat*, tu padre; *ztat*, el de aquél." — "It must however be noticed that these pronouns *q*, *a*, *z*, always are placed at the beginning of verbs or nouns and never at the end, for example *qtat*: my father; *atat*, your father; *ztat*, he (the father) of him." I am indebted to Samuel Cole and Walter Englert for the translation from Latin.

[15] I am thankful to Terrence Kaufman for pointing this out to me.

that the Copanaguastl data points in the direction of /k-/ as the form in pre-Tzeltal. But at this point the data seems rather inconclusive.

Syntactic Ergativity

As Dixon 1994 (and numerous other authors) point out, there are (at least) two types of ergative languages: those that realize ergative patterns in morphology only, and those that also instantiate ergative patterns in syntax, or in Dixon's terms those that have S/O pivot. Generally, ergative languages feature S/O patterns in the following grammatical phenomena:

- Word order
- Inter-clause coordination
- Relativization
- Question formation
- Control

Syntactic ergativity is hard to investigate in Petalcingo Tzeltal due to the free pro-drop in all positions, nonetheless, I will try to address each of the criteria listed above.

Whatever the basic word order is in Tzeltal, it seems to be verb-initial. This means word order is not going to disambiguate between S/A and S/O pivot. Thus, for example, the following coordinated construction is ambiguous:

(76) te ts^i7 laj s-nau-Ø te mis i lok^-Ø
DET dog PFV A:3-push-B:3 DET cat and leave-B:3
'The dog pushed the cat and left'

The subject of the conjoined intransitive clause "leave" can be taken to be either the dog or the cat (unlike that of the English gloss). This is presumably owing to the fact that the argument of *lok^* can be pro-dropped, rather than omitted for reasons of coordination (pivot).

Both arguments of a transitive clause can be relativized or questioned in Tzeltal, as in the following examples:

(77) a. ja7 te ach^ix te mach^a7 laj s-mil lok^
F/T DET young woman DET who PFV A:3-kill-B:3 leave
'The woman who killed (something) left'

b. ja7 te winik te mach^a7 laj k-maj-Ø lok^
F/T DET man DET who PFV A:3-beat-B:3 leave
'The man who I hit left'

(78) mach^a laj s-maj-Ø te winik
who PFV A:3-hit-B:3 DET man
'Whom did the man beat? *or* Who beat the man?'

As Baker 1997 reports, "Dyirbal has control(-like) purposive constructions in which there is a special subordinate verb form and a missing argument that is understood as coreferential with an argument of the first clause" (p81). As I argue in Chapter 2, the structures in

Petalcingo Tzeltal that have been termed infinitives and analyzed as control-like, are really nominals, and thus do not help shed light on the phenomenon of syntactic ergativity.[16]

It must be noted, however, that cross-linguistically languages that feature ergative agreement (rather than case-marking) are thought to be more ergative, and thus are more likely to exhibit syntactic ergativity phenomena (c.f. Trask 1979, Bittner and Hale 1996a). Thus it would not be entirely unexpected if syntactic ergativity were found to be present in Mayan languages, which are generally ergative, and are overwhelmingly head-marking.

In fact, in Jacaltec, a Mayan language of Guatemala (Craig 1977), question formation and topicalization (but not relative clause formation) follow ergative patterns. On the other hand, in more closely related Tzotzil there is little evidence to postulate syntactic ergativity; in fact Robinson 1996 specifically provides some evidence against it. Clifton 2001 assumes syntactic accusativity in her analysis of Tenejapa Tzeltal, though few arguments are provided.

Noun Phrases

The noun phrase in Petalcingo Tzeltal appears to have the following structure:

(79) $$(\text{DET})\begin{pmatrix}\text{QUANT}\\ \text{NUM}\\ \text{DEM}\end{pmatrix}(\text{POSS})\ (\text{ATTRIB})\text{-NOUN-}\begin{pmatrix}\text{PROX}\\ \text{DIST}\end{pmatrix}$$

Most of these parts of the noun phrase (or DP) will be discussed below.

Determiners

Tzeltal features two overt determiners: *te* and *me*. These can co-occur with most of the other DP elements shown in the above chart, such as numerals, demonstratives, attributives, etc. Both of these determiners appear to be specific, as evidenced by the fact that they cannot occur in existential predicates, which are generally taken only to accept non-specific subjects. Compare English *there is a chicken* versus ** there is the chicken*. This is sometimes called the "definiteness restriction." Nouns phrases headed by either *te* or *me* are unable to appear in existential predicates in Tzeltal:

(80) a. * ay te mut
EXIST DET chicken
'There is the chicken'

b. * ay me mut
EXIST DET chicken
'There is the chicken'

It seems that of the two, *me* is the definite determiner, while *te* is "merely" specific. This analysis is confirmed in textual occurrences: in my texts, where the same nominal referent occurs with both *te* and *me*, it occurs with *te* first, and with *me* later in the text, and never the other way around. There are also quantified examples that seem to lend support to this idea:

[16] These structures do show some syntactic ergativity, but as I argue in Chapter 2, this follows from their nominal properties.

(81) a. juju-koht ts^i7 laj s-ti7-Ø te mut
each-NC dog PFV A:3-bite-B:3 DET chicken
'Every dog bit a chicken' (meaning: "Every dog bit a different chicken")

b. * juju-koht ts^i7 laj s-ti7-Ø me mut
each-NC dog PFV A:3-bite-B:3 DET chicken
'Every dog bit a chicken' (meaning: "Every dog bit a different chicken")

In an English sentence with a quantified NP, the quantifier inside a subject may scope over the object only if the object is not definite. Thus *every dog bit a chicken* has two readings: "there is a chicken such that every dog bit it", or "for every dog, there is a (possibly different) chicken such that the dog bit it." On the other hand, if the object is definite, it cannot scope over the quantified subject, and *every dog bit the chicken* cannot mean that every dog bit a different chicken. As (81b) shows, *me* cannot scope under "every dog," showing that an NP headed by *me* is definite.

Polian 2003b argues that enclitic *-e* is also a definite determiner. In Petalcingo Tzeltal, this enclitic clearly has something to do with definiteness, but this may be epiphenomenal, as the *-e* enclitic can (but does not necessarily) co-occur with *te* and *me*. Although I am not certain of the function of the *-e* enclitic, it is discussed further in "The *-e* Clitic," below.

Quantifiers

There is to my knowledge only one quantifier in Petalcingo Tzeltal: *juju* + numeral classifier (*jujun* for generic numeral classifier):

(82) juju-koht mut
every-NC chicken
'every chicken'

Whether or not *juju-* is a "true" English-like quantifier is still an open question. To my knowledge, many non-Indo-European languages lack quantifiers that are English-like in their syntax, and thus it would not be surprising if Tzeltal did not feature a "true" quantifier as well.

Numerals and Numeral Classifiers

Tzeltal, like all Mayan languages, has a system of numeral classifiers, which is organized along shape/function lines. Much of the system is falling into disuse due to the fact that many communicative acts requiring numbers (such as buying and selling) are transacted in Spanish, and in many cases the generic classifier is replacing more specific ones. The most common numeral classifiers are shown in the following table:

Classifier	Used for...
tuhl	people
koht	all animals, cars
pehch^	flat things, tortillas
ch^ix	long things: bananas, pens, ears of corn, etc.
pix	round things: oranges, soccer balls, etc.
-eb	everything (generic numeral classifier)

Table 12: Numeral Classifiers

Tzeltal, unlike English, has a duodecimal number system (base-20). This means that numbers like "twenty" and "four hundred" are linguistic primes, whereas "one hundred" and "one thousand" are not. The numerals are formed by prefixing the numeral to the classifier. The one exception to this rule is the numeral "one" with the generic classifier: here the resulting numeral is *jun*. Some numerals of Petalcingo Tzeltal are given below:

Tzeltal	English	Tzeltal	English
j-	one	wak-	six
ch-	two	juk-	seven
ox-	three	waxak-	eight
chan-	four	balun-	nine
jo7	five	lajun-	ten

Table 13: Numbers

Numeral classifiers permit omission of the noun they classify, in a manner similar to pro-drop. Thus, for example, in (83a), the referent is understood as "person" because of the numeral classifier. Some examples of noun phrases with numerals are given below:

(83) a. ay nax ox-tuhl, chan-tuhl
EXIST only 3-NC:human, 4-NC:human
'There were only three, four people' [N01:0961]

b. j-koht onkonak
1-NC:animal frog
'One frog' [PMP-FS2:0003]

Even the older generation of Tzeltal speakers are not able to easily produce numbers above twenty.

Possessive Constructions

Possessors in Tzeltal are cross-referenced on the head of the phrase, the possessed nominal, using morphemes identical to the ergative cross-reference markers on the verb. The following are some examples of the possessive construction:

(84) a. s-ts^i7 Pedro
A:3-dog Pedro
'Pedro's dog'

b. a-bankil
A:2-older brother
'your older brother'

c. s-nich^an
A:3-child
'his child'

It must be noted that the word order in a possessive construction with an overt possessor must be possessum-possessor, and never the other way around. Discontinuous possessive constituents (with the possessor appearing away from the possessum) are either unavailable or very uncommon.

Possessed nominals cannot be pluralized. If the nominal plural marker and the Set A plural marker share the same slot at the right edge of the word/phrase, the ban on plural possessed nominals suggests that Set A number agreement is always present:[17]

(85) a. k-ts^i7
A:1-dog
'my dog/dogs'

b. * k-ts^i7-etik
A:1-dog-PL
'my dogs'

c. k-ts^i7-tik
A:1-dog-A:1.PL
our (incl) dog/dogs

d. k-ts^i7-yotik
A:1-dog-A:1.PL
'our (incl) dog/dogs'

This has some interesting parallels to the verbal cross-reference paradigm, where some Set A and Set B markers appear to be in competition for the slot at the right edge of the verbal stem.

Attributives

Attributive constructions are discussed in "Are There Adjectives in Tzeltal?" above, where I claim that there is no empirical reason to distinguish an adjective class in Petalcingo Tzeltal. The attributive modifiers are formed from formally nominal roots, with a *-Vl* suffix. The exact mechanism by which the vowel in the *-Vl* suffix is selected is obscure to me, but the vowels that occur in attributive-forming suffix are /i/ and /a/:

-al		***-il***	
yax-al	'green'	naht-il	'tall'
sak-al[18]	'white'	k^un-il	'slow; smooth
tsaj-al	'red'	lek-il	'good
k^an-al	'yellow'	sak-il	'white'
ijk^-al	'black'		

Table 14: *-il* versus *-al* modifiers

The modifiers appear to the right of the possessor cross-reference in most cases, and can be apposed, English-like, to form a noun phrase with multiple modifiers:

(86) k-naht-il sak-il mut
A:3-tall-MOD white-MOD chicken
'my tall, white chicken'

[17] Alternatively, this co-occurrence restriction could be due to the phonological similarities of the markers in question.

[18] *sak* ("white") can appear with both *-il* and *-al*. With some speakers these appear in free variation, though it seems that younger speakers prefer *-il*.

The positional stems also form what look like attributives, however, I argue that these are in fact secondary predicates. These constructions are discussed in "Positionals" on page 25, above.

Verb Phrases

Tzeltal verb phrases may contain aspectual markers, auxiliaries, and directionals, in addition to the verb itself. The general "map" of the Petalcingo Tzeltal verb phrase (excluding any NPs) may be given roughly as follows:

(87) (ASP) (AUX) (ERG)-(ADV)-VERB-(APPL)-$\begin{pmatrix} \text{PASS} \\ \text{APASS} \\ \text{MID} \end{pmatrix}$-(PERF)-(ABS) ($\text{DIR}_1$) ($\text{DIR}_2$)

The inflection (person/number cross-reference) may appear on the verb itself, or on the auxiliary, depending on the verb form. The different forms a (main) verb may appear in are discussed in the following sections. The irrealis mood marker *-uk* is discussed in "Clause Structure," below, as it does not appear to be a property of verbal predicates exclusively.

Verb forms

The (main) verbs in Tzeltal can appear in one of four forms:

- Regular (inflected form)
- *-el* form
- *-bel* form
- *-aw* form
- Compound form

These are discussed in detail in the sections that follow. Descriptively speaking, when the main verb appears in a form that cannot take person/number inflection (the *-el* and *-aw* forms), the auxiliary takes these inflectional cross-references.

The Regular Form

Normally, transitive verbs take ergative and absolutive cross-reference markers, while intransitive verbs take absolutive markings. As aspect markings are not obligatory in Petalcingo Tzeltal, aspectual information may or may not be overtly expressed in these types of clauses (this is discussed in detail below). Some examples follow:

(88) a. laj s-maj-on
PFV A:3-hit-B:1
'He hit me'

b. bah-at ta k^altik
go-B:2 PREP field
'You went to the field'

The *-el* form

This form is frequently used with progressive aspect. In this form the verb appears with an *-el* suffix, and never takes absolutive inflection. As pointed out by Polian 2003a, these forms are nominal in character: for example they may follow a preposition, which verbs in Tzeltal generally cannot do:

(89) yakal-Ø ta yahl-el te alal-e
PROG-B:3 PREP fall-el DET child-CL
'The child is falling'

The following example shows that regular nouns can appear in the same position:

(90) yakal-on ta machit
PROG-B:1 PREP machete
'I am (doing) machete; I am working with a machete'

The *-el* participles formed from transitive verbs do take Set A inflection markers in some circumstances. In this case, however, the Set A inflection markers cross-reference the patient argument, rather than the agent:

(91) yakal-on ta **a**-mil-el
PROG-B:1 PREP **A:2**-kill-el
'I am killing **you**'

Without an ergative cross-reference, the *-el* participles formed from transitive verbs seem to have their agent theta-role satisfied. Therefore these *-el* participles assign the patient theta-role:

(92) yakal-on ta mil-el
PROG-B:1 PREP kill-el
'I am being killed'

It seems that *yakal-ABS ta* TRANSITIVE-*el* form cannot take an object nominal, other than the one cross-referenced by the absolutive marker on *yakal* (I am talking about a situation where no ergative cross-reference appears on the dependent form). Although I lack an explicit example showing the ungrammaticality of such a construction, there is one example in my data that strongly suggests that such constructions are not possible:

(93) a. yakal-Ø ta ch^i7-el winik
PROG-B:3 PREP break-el man
'(They are) breaking a man'

b. winik yakal-Ø ta ch^i7-el
man PROG-B:3 PREP break-el
'(They are) breaking a man'

The utterance is decidedly pragmatically awkward, as the verb *ch^i7* is generally not used with humans as objects. A more pragmatically neutral reading would be "the man is breaking something", and if such a reading was available, I believe it would have been offered by my informants. That is, if *yakal-ABS ta TRANSITIVE-el* form could appear with another nominal, albeit pro-dropped, this nominal could serve as the less pragmatically awkward object of the verb *ch^i7*. Since no such reading was offered, in this instance not in similar cases, I conclude that *yakal-ABS ta TRANSITIVE-el* form cannot take an (additional) object nominal.

While Polian 2003a analyzes these forms as infinitives, I argue in Chapter 2 that that the *-el* forms are best understood as nominalizations. However, I will, remain neutral in my glosses and gloss these as "participles."

It bears mentioning that some stems form *-el*-type participles via the suffix *-ej*:

(94) a. i och-Ø ta wowo-t-awan-ej
and enter-B:3 PREP bark-TRANS-APAS-PART
'empezó a ladrar; he began to bark' [APG-FS:0094]

b. yakal-on ta nak-l-ej
PROG-B:1 PREP sit-V-PART
'I am sitting down'

In the examples above the *-ej* stem appears with a positional stem and an antipassivized transitive stem. Though the conditions governing the *-ej*/*-el* alternation are not completely clear to me, it seems likely that the *-ej* suffix mainly appears with derived stems.

The *-aw* form

In contrast with the *-el* form, the *-aw* form appears as a nominalization which leaves the patient theta-role satisfied, rendering the nominalization with an agent theta-role to assign.[19] This makes this nominalization "agent-oriented":

(95) yakal-on ta mil-aw
PROG-B:1 PREP kill-PART
'I am killing'

The *-bel* form

This form for the verb is able to take both ergative and absolutive cross-reference markers, and is a participle-like form similar to the *-el* form:

(96) yakal s-mil-bel-on
PROG A:3-kill-PART-B:1
'He is killing me'

The question of nominality of both the *-el* and the *-bel* participles is examined further in Chapter 2.

The Compound form

This "syntactic compound" form is only used with transitive verbs. In this form, a verb appears with an object, and does not take any person/number cross-reference markers. The compound form formally appears to be a kind of nominalization.

(97) a. yakal-on ta we7 waj
PROG-B1 PREP eat tortilla
'I am eating a tortilla / tortillas '

b. laj k-tikun-at ta tul chenek^
PFV A:1-send-B:2 PREP cut beans
'I sent you to harvest beans'

[19] I will again remain neutral in the glosses, glossing the *-aw* form as participle-forming.

Perhaps an argument could be made that this is a form of noun incorporation. However, in this case we would expect the verb-nominal complex to act like an intransitive verb, and be able to take absolutive markings at the left edge. This does not appear to be possible:

(98) * tul chenek^-on
cut beans-B:1
'I harvested beans'

In the Mayan linguistics literature, it is frequently remarked that transitive stems may never appear in the "bare" form, that is, without derivational or inflectional markers. This "compound form" seems to be an exception to this observation, albeit one that does not appear very frequently in discourse.

Tense and Aspect

Tense is traditionally defined as a deictic category (for example see Jakobson 1971): it indicates the time of the narrated event relative to some variable whose value can be determined from the context of the speech event, such as "now." Thus, "past" is a time before "now", while "present" is a time co-extensive with "now." Aspect, on the other hand, is a way of referring to the temporal constituency of the situation (Comrie 1976), without a reference to the speech event situation. Tzeltal has very little, if any, grammaticalized tense, and like most Mayan languages instead marks clauses for aspect. This is not uncommon in the world's languages: Bybee 1985 (cited by Payne 1997) finds that while 74% of the languages in her sample feature overt morphological manifestation of aspect, only 50% feature morphological manifestation of tense.

Unlike many Mayan languages, Petalcingo Tzeltal actually does have some grammaticalized manifestation of tense: it is a generalized reflex of the distal clitic *-a*, described in more detail in "Deictic Clitics," below. Thus, it seems, the spatial distal meaning of *-a* has been generalized to include the temporal meaning as well. Thus, the only way to say something like "I was a man" in Petalcingo Tzeltal is by employing the distal clitic:

(99) winik-on-a
man-B:1-DIST
'I was a man'

The *-a* tense clitic may show up in verbal clauses as well, though whether the temporal or spatial distance is intended may be ambiguous. However, the fact, that this marker shows up on nouns may speak to its intermediate status, as generally tense is considered a verbal, not nominal, category.[20]

The more robust way of expressing temporality in Petalcingo Tzeltal is through aspect. Aspect is expressed either via auxiliaries, or via a clitic / affix, for intransitive verbs. The task of separating purely aspectual material from other auxiliaries proves somewhat difficult for Petalcingo Tzeltal. The auxiliary information can be expressed by various grammatical means, and while some of these express aspect only, others seem to express a combination of aspect, tense, and/or modality. This yields one continuum for a typology of aspectual marking in Petalcingo Tzeltal. Another such continuum is obtained by examining the degree

[20] Though in some languages what look like tense markers show up on nouns, Alexiadou 2001 argues that they do not refer to "tense" in the same sense.

of grammaticalization, which ranges from maximally grammaticalized (in the historical linguistic sense of the term, i.e. where aspectual distinctions are expressed by a morpheme that does not express non-aspectual distinctions) to minimally grammaticalized, where an aspectual auxiliary may (depending on the pragmatics) refer to spatial and not aspectual information. Finally, some aspectual markers act in the fashion of auxiliaries, i.e. can take inflectional morphemes, while others are largely invariant, and may not take inflection, thereby "forcing" the inflectional morpheme to appear on the verb itself. These three typologies of aspectual markers are not completely independent, and interrelate in various interesting ways.

A sample of some lexemes that appear to carry aspectual information is shown below in Table 15. The second and third columns show default marking in transitive and intransitive clauses. The fourth column lists whether an unmarked form exists (for example, intransitive clauses without an overt aspect marker are understood as perfective). The fifth column details whether this morpheme may take inflection, and the sixth lists whether a main verb exists corresponding to the aspectual marker.

Meaning	**Intr**	**Trans**	**Ø-form?**	**Infl**	**Main**
incompletive	x	Ø	yes	no	no
perfective	Ø	laj[21]	yes	no	yes
progressive	yakal	yakal	no	yes	no
inceptive	och	och	no	yes	yes

Table 15: Aspectual Morphemes and their Distribution

Modern literature on Tzeltal (Polian 2003b) generally recognizes three aspects (not including Perfect, which I discuss below): Incompletive/Imperfective, Completive/Perfective, and Progressive.[22] However given the distributional properties of a marker like *och*, it seems that if the progressive is recognized as bona fide aspect, then *och* (inceptive) must be recognized as such on formal grounds: distributionally, *och* appears in the exact same environments as *yakal*, as illustrated by the following examples.[23] Both can take *-bel* and *-el* participle complements, and the syntax of these complements is identical irrespective of the matrix verb used:

(100) a. yakal-on ta yahl-el
PROG-B:1 PREP fall-PART
'I am falling'

b. yakal s-mil-bel-on
PROG A:3-kill-PART-B:1
'He is killing me'

(101) a. och-on ta way-el
enter-B:1 PREP fall-PART
'I am falling asleep'

[21] There is also a "terminative" *laj* auxiliary, which I discuss later.

[22] Sánchez Gómez et al 2003 mention only the Perfective and Imperfective.

[23] The fact that *och* but not *yakal* can also serve as a main verb does not, I believe, diminish the force of the argument presented.

b. och s-mil-bel-on
enter A:3-kill-PART-B:1
'He began to kill me'

However, that may be opening Pandora's box, leading to a plethora of aspectual distinctions, since Petalcingo Tzeltal presents a hypertrophy of other aspectual-like auxiliaries such as terminative *laj*, inceptive *jahch*, and many others.

One way of formally distinguishing the commonly-recognized aspects from other auxiliaries which may carry aspectual meaning is the compatibility with another aspectual marking and/or default interpretation. Perfective, Incompletive and Progressive aspects, when morphologically marked, are unable to combine with another one of these aspectual markers. This is not true for aspects like inceptive *och*. Compare the following:

(102) a. och ta yahl-el
begin PREP fall-PART
'empezó a caer; he began to fall'

b. x-och ta yahl-el
ICMP-begin PREP fall-PART
'empieza a caer; he begins to fall'

As the above examples show, the auxiliary construction otherwise unmarked for aspect is interpreted as perfective, rather than incompletive, regardless of the transitivity of the (semantically) main verb. This kind of distinction, however, may be *ad hoc* since it probably is also possible to offer a semantic explanation for the inability of *x-* to combine with perfective and progressive aspect markers. I offer a different view of this phenomenon in Chapter 2.

Unmarked Aspect

Petalcingo Tzeltal features zero marking of some aspects, depending on the transitivity of the verb. If any intransitive clause appears without morphological expression of aspect, it is interpreted as perfective, while a transitive one is interpreted as incompletive:

(103) a. laj s-mil-Ø
PFV A:3-kill-B:3
'He killed it'

b. s-mil-Ø
A:3-kill-B:3
'He kills it', 'He will kill it'

(104) a. boj-on
go-B:1
'I went'

b. x-boj-on
ICMP-go-B:1
'I am going', 'I will go', 'I go'

This is rather unusual in the sense that the transitive and intransitive aspect marking seems completely divergent. We may note in passing that the details of the aspect marking seem to contravene the Transitivity Hypothesis articulated in Hopper and Thompson 1980: in

Petalcingo Tzeltal an unmarked aspect in intransitive clauses (a low transitivity feature) correlates with a high transitivity feature, namely the perfective reading, and the opposite in transitive clauses.

It is worth remarking that the intransitive incompletive aspect marker *x-* does appear in transitive clauses, but it is limited to negative constructions:

(105) a. ka-k^an-Ø?
ICMP.A:2-want-B:3
'Do you want it?'

b. ma-x a-k^an-Ø?
NEG-ICMP A:3-want-B:3
'You don't want it?'

The *x-* in transitive incompletive constructions only appears with 2nd-person ergative marker:

(106) ma s-k^an-Ø
NEG A:3-want-B:3
'She does not want it'

This may suggest, contra the glosses in (105) that *x-* actually appears on the verb: this would allow us to account for its non-appearance in (106): the *x*sC consonant cluster would reduce to ssC via assimilation, and then degeminate. With other ergative markers, the consonant cluster resulting from *x* + ERG + C would also be prohibited by Tzeltal phonological structure. If this hypothesis is correct, then perhaps the aspect marking in Petalcingo Tzeltal is not as disjunctive as it might appear at first sight, since we could postulate the presence of *x-* in all transitive constructions. However, this seems not to be the case, since if anything, non-negative transitive clauses seem to feature their own incompletive marker.

A sometimes optional incompletive marker *ya(k)* is available for Petalcingo Tzeltal transitive clauses, and its distribution is governed by two different considerations. First, it is optionally inserted for emphatic effect in any transitive clause. Secondly, it is may be added as a host for a second-position clitic:

(107) a. laj k-ai-Ø yak-laj s-mil-Ø j-kojt mut
PFV A:1-hear-B:3 ICMP-EVID A:3-kill-B:3 1-NC:animal chicken
'Escuché que va a matar un pollo; I heard they will kill a chicken'

b. ja7 y-u7un yak-to k-pas-tik bajel
F/T A:3-for ICMP-still A:3-do-PL away
'Por esso todavia lo vamos hacer; Therefore we will still do it' [HBC:0375]

There is a third context where the incompletive *ya(k)* surfaces, and that is in short affirmative answers. Tzeltal has no generic "yes"-like lexeme, and the closest response to a generic "yes" would be *jich* ("oh yeah, sure," literally "like this"). A regular short affirmative response is the bare aspect marker, with the aspect being appropriate to the question asked. Thus, "Did you feed the pigs?"—"laj", but "Will you bring the water"—"yak."

Likewise the trace of *ya(k)* seems to surface with incompletive clauses with 2nd- and some 3rd-person ergative markers, as discussed immediately below.

Ossified Portmanteau Morphemes

While generally the morphemes that express aspect in Petalcingo Tzeltal are invariant, other than taking inflection markers in circumstances described above, and are easily segmentable from person/number cross-reference morphemes, there is one notable exception to this pattern: the incompletive 2nd-person marker, *ka*. When a transitive clause with incompletive aspect appears with a 2nd-person agent, a different marker must be used:

(108) a. ka na-Ø
A:2.ICMP know-B:3
'You know it'

b. * a-na-Ø
A:2-know-B:3
'You know it'

In the perfective, a regular Set A marker must be used:

(109) a. * laj ka mil-Ø
A:2.ICMP kill-B:3
'You killed it'

b. laj a-mil-Ø
PFV A:2-kill-B:3
'You killed it'

The incompletive 2nd-person marker, *ka* could be analyzed as the combination of the word-final phone in *yak* and the regular 2nd-person ergative marker *a(w)-*. This suggests that in "Pre-Petalcingo Tzeltal" *yak* was always used to mark incompletive in transitive clauses. Today, *ya(k)* marks incompletive clauses in the Tenejapa variant of Tzeltal (Clifton 2001) as well as in the Bachajon variant (Slocum, Gerdel, and Cruz Aguilar 1999). This theory receives further support if we note that this combination of the *yak*-final consonant /k/ and a following vowel becomes phonologically quite natural. Were *yak* to precede transitive verbs, as I argue, what would follow the *yak*-final /k/ is one of five phones: /k/, /j/ (for 1st-person ergative cross-reference), /a/ (for 2nd-), and /s/ or /y/ (for 3rd-). This means that there would be five different double-phone clusters at the junction: *kk*, *kj*, *ka*, *ks*, and *ky*. The *kk* consonant cluster would reduce to *k* by the regular application of a phonological rule, and the *kj* and *ks* would reduce (deleting the /k/) because these consonant clusters seem to be disallowed, or at least dispreferred in Petalcingo Tzeltal, which explains why we do not see the remnant of *yak* with 1st-person ergative in incompletive clauses. The *ka* cluster is rather natural in Petalcingo Tzeltal and thus we see the remnant of *yak* with 2nd-person ergative in incompletive clauses.

This analysis makes an interesting prediction: as the *ky* cluster is perfectly fine in Petalcingo Tzeltal, we should be able to see the remnant of *yak* in 3rd-person ergative markers with vowel-initial stems. This is exactly what we find, at least in some cases:

(110) a. laj y-a-be-Ø
PFV A:3-give-APPL-B:3
'She/he/it gave it'

b. **ky**-a-be-Ø
ICMP.A:3-give-APPL-B:3
'She/he/it gives it'

(111) a. laj y-il-Ø
PFV A:3-see-B:3
'She/he saw it'

b. **ky**-il-Ø
ICMP.A:3-see-B:3
'She/he sees it'

Interestingly, the /k/ does not show up in negative incompletive transitive constructions:

(112) ma-x a-k^an-Ø?
NEG-ICMP A:3-want-B:3
'You don't want it?'

This seems to show that incompletive *x-* and incompletive *ya(k)* are (or were) in complementary distribution with transitive verbs.

Imperative

In line with Petalcingo Tzeltal grammar's preoccupation with grammatically separating transitive and intransitive verbs, imperatives seem to be formed differently for these two kinds of verbs. For intransitives, the suffix *-an* is used, with a plural Set B marker, if necessary:

(113) a. we7-an
eat-IMP
'Eat!'

b. och-an-ik
enter-IMP-A:PL
'(You pl) enter!'

For transitive verbs, the basic imperative is formed from a verbal stem with an *-a* suffix, with an optional Set A plural marker. No Set A person marker (on the left edge) is used:

(114) a. mil-a-Ø
kill-IMP-B:3
'Kill it!'

b. mil-a-y-ik ejk in-i
kill-IMP-EPN-A:PL also DEM-PROX
'(You pl) kill this one too!' [HBC:0417]

A Set B marker can be attached to the verb if necessary to indicate the patient argument of a transitive imperative:

(115) mil-on
kill-B:1
'Kill me!'

The construction above could be analyzed as containing the *-a* imperative suffix, which has been deleted through the process of vowel hiatus resolution. On the other hand, sometimes Tzeltal epenthesizes a glide to break up vowel clusters (though the conditions which govern vowel deletion, rather than epenthesis of a consonant to break up vowel clusters are not clear), so perhaps an argument could be made that the imperative marker is either Ø, or competes for the same slot as the absolutive cross-reference.

Negative imperatives of the intransitive verbs are usually formed with the *me* particle, which, in this case, may be the evidential *-me* discussed in "Evidentials," below. Negative intransitive imperatives without this marker are ungrammatical. The fact that *me* is not functioning as a complementizer is illustrated by the fact that the other complementizer *te* is ungrammatical in these constructions:

(116) a. ma me yahl-an
NEG EMPH fall-IMP
'Don't fall!'

b. * ma yahl-an
NEG fall-IMP
'Don't fall!'

c. * ma te yahl-an
NEG COMP fall-IMP
'Don't fall!'

Transitive imperatives optionally take the *me* marker, and interestingly, make use of the incompletive marker generally used only with intransitive verbs (in declarative clauses):

(117) a. ma-x a-mil
NEG-ICMP A:2-kill
'No lo mates! Don't kill it!'

b. ma me x-a-mil
NEG EMPH ICMP-A:2-kill
'No lo mates! Don't kill it!'

The placement of *me* seems to suggest that it is, in fact, the evidential marker, as it appears in the second position, between the negative marker and the aspectual clitic. This is the position in Petalcingo Tzeltal clauses where many evidential clitics appear.

Auxiliaries and Directionals

A rough schematic of a complete Tzeltal verbal complex was given in (87), above, and is reproduced in a shortened version here:

(118) (ASPECT) (AUX) VERB (DIRECTIONAL$_1$) (DIRECTIONAL$_2$)

The diagram suggests that the pre-verbal auxiliary may indicate something other than aspect, and this is true. The verbs that have been found to occupy this position are listed below (more verbs may be available to act as auxiliaries):

Auxiliary	Gloss
baht	go
jahch	lift
jul	arrive
k^an	want
k^ot	arrive
laj	finish
lihk	lift (begin)
lok^	exit
muh	rise
och	enter
suht	return
tal	come

Table 16: Auxiliary Verbs

Auxiliaries in Mayan languages have been previously analyzed in the literature. See Aissen 1987 for a Tzotzil analysis, or Zavala Maldonado 1993 for a treatment of auxiliaries in Mayan languages. Here I will only touch on some major aspects of Petalcingo Tzeltal auxiliaries, though some analysis will be offered in Chapter 2.

It will be noted that the large majority of auxiliaries are motion verbs. Semantically these verbs may express one of three things: aspect/mood, motion, or motion-cum-purpose as described for Tzotzil in Aissen 1994. Some examples are given below:

(119) k-lihk-Ø koh-el jun kubeta ja7
A:1-lift-B:3 descend-PART one bucket water
'Voy a bajar con una cubeta de agua; I will descend with a bucket of water'

The construction above is assimilated to the progressive construction syntax in Chapter 2.

Directionals are formed from motion verbs and appear at the end of a verbal complex. In this position the verbs take the *-el* suffix,[24] and up to two such verbs may appear following the main verb:

(120) yah-laj koj-el talel me ala ts^i7-e
fall-EVID DIR:down DIR:toward DET DIM dog-CL
'The doggie fell down (toward us)' [PMP-FS2:0050]

[24] How the directional-forming *-el* suffix relates to the homophonous participle-forming suffix is an open question.

These seem to express not only the direction of the action, but depict the deictic perspective (as in the case of *talel* above) from which the motion is presented. It seems that the second directional slot is reserved for the perspectival use of the directional, as only a few verbs may appear there, as detailed in the following table:

Slot 1	Gloss
lok^el	exit
muhel	rise
kohel	descend
ochel	enter
sutel	exit

Slot 2	Gloss
tal(el)	toward
bahel	away

Table 17: Directional Verbs

One verb, *tal*, does appear without the *-el* suffix, suggesting that perhaps it is farther along a grammaticalization cline than the other directionals. This is supported by the fact that some speakers feel that it forms a single word with the word to its left. An example is given below:

(121) yakal-on-tal ta bej-el
PROG-B:1-DIR:toward PREP walk-PART
'I am coming on foot (walking)'

The position of the directional can determine whether the auxiliary is interpreted as spatial or aspectual. Consider:

(122) a. och-on ta behel (talel)
enter-B:1 PREP way-PCHG (DIR:towards.here)
'empezé caminar; I started walking'

b. och-on tal(el) ta beh-el
enter-B:1 DIR:towards.here PREP walk-PART
'entré caminando; I walked in'

What this shows is that the directional appears at the right edge of the VP, with anything to the right of the directional being interpreted as a VP-adjunct. Spatial auxiliaries like *och* are interpreted as aspectual if they appear without a complement content verb, and spatial otherwise, though it must be noted that *och* can perfectly well function as a directional (*ochel*).

Counterfactual Past Incompletive

One particular auxiliary that deserves special treatment, is *k^an* ("was/were going to [do X]"), which plainly derives from a transitive root *k^an* ("to want"). One reason it must be accorded its own section is that Petalcingo Tzeltal distinguishes it morphosyntactically: its complement verb, when intransitive, must take an irrealis mood marker. Given Tzeltal's propensity for treating transitive and intransitive verbs differently, it is no surprise that transitive complements are treated differently:

(123) a. k^an s-mil-Ø
want A:3-kill-B:3
'Lo iba a matar; he/she/it was going to kill it'

b. k^an yahl-uk
want fall-IRR
'Iba a caer; He/she/it was going to fall'

With absolutive marking present, the vowel in *-uk* deletes:[25]

(124) k^an yahl-k-on
want fall-IRR-B:1
'Iba yo a caer; I was going to fall'

Another reason why the *k^an* auxiliary seems different from others, is that unlike those already discussed, it is neither spatial nor purely aspectual, but rather is a portmanteau marker that combines aspect with modality. Though in (123b) irrealis mood is expressed overtly, in (123a) it receives no overt realization.

Antipassives, Passives, and Middles

This section describes antipassives, passives, and middles. These are valence-changing operations that reduce that valence of the verb from two to one (the lack of true three-place predicates in Tzeltal is discussed in "Applicatives," below).

It is interesting to note that in all these voices, Petalcingo Tzeltal maintains its sensitivity to the transitivity of a predicate, as manifested in unmarked aspect interpretation. Thus passive, middle, and antipassive clauses with no aspect marking are interpreted as imperfective, just like intransitive clauses.

Antipassive

Petalcingo Tzeltal, like most ergative languages, features an antipassive construction. Antipassive is a valence changing operation that elides the object of the transitive verb, producing an intransitive predicate. While a regular transitive verb must bear both ergative and absolutive markers, antipassivized verbs may not bear ergative marker, and agree with their sole core argument via an absolutive cross-reference:

(125) a. mil-awan-on *compare* s-mil-on
kill-APAS-B:1 A:3-kill-B:1
'yo mató; I killed' 'He kills me'

b. pas-awan-at
do-APAS-B:2
'tu hiciste; you did, you made'

c. x-mil-awan-on
ICMP-kill-APAS-B:1
'mato; I kill'

Antipassive in the world's ergative languages is usually used to promote an agent argument to the "subject" slot for extraction, intra-clause co-reference and other operations that may required an absolutive-marked argument, as well as to omit a reference to a patient, by detransitivizing a verb. An interesting example of the latter function is as follows:

[25] I am grateful to John Haviland for suggesting this analysis.

(126) i och-Ø ta wowo-t-awan-ej
and enter PREP bark-TRANS-APAS-PART
'empezó a ladrar; he began to bark' [APG-FS:0094]

In Tzeltal the stem *wowota* ("to bark at someone") is transitive, however in the example above, the dog is not barking at anything in particular, therefore the speaker used the antipassive form to describe the action.

Passive

Passive is an operation that promotes the object of a transitive clause to a subject, and elides (or demotes to an oblique) the (former) subject. Unlike some ergative languages, Petalcingo Tzeltal also has a productive passive construction. Normally, Tzeltal transitive verbs obligatorily take ergative cross-reference markers, however since the subject of a transitive verb is elided or appears as an oblique, no ergative inflection is possible with passivized verbs. The (former) object is cross-referenced, as before, via absolutive agreement markers:

(127) a. mil-ot-Ø
kill-PASS-B:3
'lo mataron; he was killed'

b. x-mil-ot-at
ICMP-kill-PASS-B:2
'te van a matar; you will be killed'

The agent, when expressed, is realized as an oblique:

(128) a. x-mil-ot-at y-u7un winik-etik
ICMP-kill-PASS-B:2 A:3-for man-PL
te me x-bah-at ta Majasil
COMP EMPH ICMP-go-B:3 PREP Majasil
'You'll be killed by (some) men if you go to Majasil'

b. ti7-ot ta ts^i7
bite-PASS PREP dog
'It was bitten by the dog'

I am not sure whether *-u7un* and *ta* are in free variation when expressing demoted agents in a passive, or if there is some subtle semantic difference between the two. Aissen 1987 claims that in Tzotzil *ta* is less common then *-u7un* for expressing agents of passivized verbs, and that for expressing non-3rd-person agents *ta* is ungrammatical.

Unlike some languages (such as German), Tzeltal passive cannot be applied to an intransitive verb to form impersonal passives.

Middle

Finally, Petalcingo Tzeltal has a middle voice. Polian 2003a reports that in the Oxchuk variant this construction is not very productive. The extent of its productivity in Petalcingo Tzeltal is unknown. The middle voice is formed by infixation of /j/ or /h/ (alternatively, by lengthening of the vowel, see "Vowels" on page 11, above). Some examples:

(129) a. laj k-mak-Ø mahk-Ø
PFV A:1-close-B:3 close.MID-B:3
Llo cerré; (I) closed it' 'Se cerró; It closed'

b. laj k-jam-Ø jahm-Ø
PFV A:1-open-B:3 close.MID-B:3
'Lo abrí; I opened it' 'Se abrió; It opened'

c. laj j-k^as-Ø machit-e7 k^ahs-Ø machit-e
PFV A:3-break-B:3 machete-CL break.MID-B:3 machete-CL
'Lo rompeó el machete; 'Se rompeó el machete;
He broke the machete' the machete broke'

When the root vowel is already aspirated (lengthened) the aspiration is replaced by /j/, whereas when the root vowel is not aspirated aspiration, or /h/ is infixed.

That these are true middles can be shown by the fact that unlike passives, no agent can be expressed:

(130) a. * mihl y-u7un winik-etik-e
kill.MID A:3-by man-PL-CL
'(He) was killed by the men'

b. mil-ot y-u7un winik-etik-e
kill-PASS A:3-by man-PL-CL
'(He) was killed by the men'

As with the other valence-reduced forms discussed in this section, this construction is interpreted as perfective when unmarked for aspect; incompletive is formed the same as with intransitive verbs:

(131) x-mahk-Ø
ICMP-close.MID-B:3
'Se sierra; It closes'

Some middle constructions appear without the infix, and are formed simply from transitive stems without ergative marking on the verb. The set of stems that does not undergo infixation varies among speakers: the same roots that take the infix for some speakers do not take it for other speakers.

Applicatives

Applicatives are generally considered valence-increasing operations that promote a peripheral argument (an oblique) to a core argument of the verb. Petalcingo Tzeltal has one applicative construction, with the sense of "for (someone)": it can express benefactive as well as malefactive meaning. In addition many verbs that are tri-valent in English (like "say" or "give") are expressed though the applicative construction in Tzeltal. Both of these uses are illustrated below:

(132) a. ya-bal a-jam-b-on-ik in-i7
ICMP.EMPH A:2-open-APPL-B:1-PL DEM-PROX
'Si puedes abrir este; Can you open this for us?' [HBC:0278]

b. laj k-al-be-Ø
PFV A:1-say-APPL-B:3
'I told him/her'

c. te winik-e laj y-a-b-on jun libro
DET man-CL PFV A:3-give-APPL-B:1 one book
'The man gave me a book'

Applicatives do not make the verb actually tri-valent in Petalcingo Tzeltal. This is seen when a transitive verb with an applicative is passivized, as in the following example:

(133) ti7-b-ot s-ni7
bite-APPL-PASS A:3-nose
'He got his nose bitten' [APG-FS:0044]

In this example, if the applicative (with a transitive verb) formed a trivalent predicate, we would expect that when such a stem is passivized it would form a transitive stem again. The fact that the construction in (133) is, in fact, intransitive, shows that trivalent Tzeltal does not have trivalent verbs.

Therefore in Petalcingo Tzeltal "applicative" should be more properly considered an argument re-arranging application; however, it does allow more arguments to be expressed without the need for oblique constructions.

Perfect and Resultative Constructions

Comrie 1976 argues that while perfect constructions have been traditionally analyzed as belonging to an aspect category, frequently these constructions are unlike verb phrases with aspectual marking. The facts of Petalcingo Tzeltal perfect constructions seem to support this assertion, and for this reason the perfect constructions are discussed separately from aspectual marking.

Petalcingo Tzeltal features a variety of perfect and resultative constructions. In keeping with the language's morphological preoccupation with distinguishing agent-oriented and patient-oriented constructions (see *-el* vs. *-aw* in "Verb forms" on page 43, above), for transitive verbs Petalcingo Tzeltal distinguishes agent-oriented versus patient-oriented perfects and resultatives. The perfect morphology can be summarized as follows:

Morpheme	Usage
-oj/-ej	Agent-oriented transitive perfect
-bil	Patient-oriented transitive perfect
-em/-en	Intransitive perfect

Table 18: Perfect and Resultative Markers

In this section I do not make a distinction between perfect and resultative, and use these terms interchangeably. The details of these constructions are described in what follows.

Agent-Oriented Transitive Perfects

This perfect construction requires an expression of the agent via ergative cross-reference, and, in fact, is ungrammatical without it:

(134) a. s-mil-oj-Ø
A:3-kill-PERF-B:3
'Lo ha matado; He has killed him/her/it'

b. * mil-oj
kill-PERF
'(Someone) killed it'

The determination of how the allomorph is selected is somewhat opaque to me. For some informants, the *-oj* allomorph is generally the default one, the one exception being when it follows a causative *-(t)es*, though even then, for some of the less frequently causitivized roots these speakers accept the *-oj* allomorph. For others, both *-oj* and *-ej* are equally acceptable in most cases.

This perfect construction, unlike the others described in this section, is not used attributively (as a modifier of a noun): some speakers find it marginal in attributive use, while other reject it outright. It is interesting to note that for those speakers that find attributive use at least marginally acceptable, the noun it would modify would be construed as the patient, rather than agent of the action.

For unmarked aspect purposes, Petalcingo Tzeltal seems to treat this construction as an intransitive. Consider the following:

(135) a. k-jel-oj-Ø
A:1-change-PERF-B:3
'I have changed it'

b. x-jel-oj-Ø
ICMP.A:3-change-PERF-B:3
'He will have changed it'

Even though both the agent and the patient can be expressed via the cross-reference markers on the verb, aspect marking with this construction follows the intransitive paradigm: unmarked (for aspect) constructions are interpreted as perfective, while incompletive aspect must be expressed overtly. There are two possible explanations for this: one is that even though both of the arguments are cross-referenced on the verb, the construction is so agent-oriented (like an anti-passive) that it is treated as intransitive. Or perhaps, since perfect expresses a result of some action, and thus is more commonly describes a state of affairs resulting from some action, this is one case in Petalcingo Tzeltal grammar where the expected usage is dictating the unmarked interpretation.

The fact that this perfect marking can co-occur with other, overt, "primary" aspect marking (namely imperfective) seems to suggest that *-oj* should be treated differently from aspectual markers. This is beside the fact that this perfect construction, like all others, shows up in a completely different place on the verb. Taken together, these facts seem to support Comrie's analysis of perfect as something different than aspect.

Patient-Oriented Transitive Perfect

This morphological perfect is the patient-oriented counterpart to the agent-oriented construction detailed above. This de-verbal form, unlike a regular verb, can be used either predicatively or attributively:

(136) a. mil-bil laj k-il-Ø te winik-e
kill-PERF PFV A:1-see-B:3 DET man-CL
'I saw the man$_i$ dead$_i$'

b. laj k-chon-Ø k^as-bil machit
PFV A:1-sell-B:3 break-PERF machete
'I sold the broken machete'

c. k-mil-bil ts^i7
A:1-kill-PERF dog
'my killed dog'

However, it is possible that even in (136b) *k^asbil* ("broken") is a secondary predicate. We would need to have an example of the putative attributive use with non-3rd-person head noun to be sure.

With this patient-oriented perfect, agent expression is not required, and ergative cross-reference marking is not possible. An agent can be expressed as an oblique, headed by relational noun or a preposition, but only when the perfect is used as a main predicate:

(137) a. te x-Marta pas-bil y-u7un te portera
DET G-Marta do-PERF A:3-by DET portera
'Marta fue curado por la partera; Marta was cured by the portera'

b. te mut mil-bil ta ts^i7
DET chicken kill-PERF PREP dog
'The chicken was killed by the dog'

This distribution covers (is a union of) the distribution of a bare noun stem (which can function as a predicate) and a noun stem with attributive morphology (which can only function as a modifier). This is illustrated in the following table:

	Bare Noun ***sak*** **("white")**	**Attributive Noun** ***sakil*** **("white")**	**Perfect** ***milbil*** **("killed")**
Main Predicate	yes	no	yes
Secondary Predicate	yes	no	yes
Attributive	no	yes	yes

Table 19: Distribution of *-bil* Perfects

Presumably just like bare noun stems with adjectival meaning, this type of perfect can also be used as an argument, though I do not have data to support this assertion.

Intransitive Perfects

Intransitive perfects are formed via the *-em/-en* verbal suffixes. At this point the criteria that determine which of these suffixes are selected are obscure to me. The large majority of intransitive verbs take the *-em* suffix:

(138) a. yahl-em te alal-e
fall-PERF child-CL
'The child has fallen'

b. ay cham-en winik ta s-na7
EXIST die-PERF man PREP A:3-house
'There is a dead man in his house'

Just like the *-bil* perfect, the *-em/-en* perfect can function as an attributive or a predicate.

Clause Structure

In this section I describe some aspects of the structure of Petalcingo Tzeltal clauses. Since the word order and VP structure were already described in some detail above, in this section I concentrate on the other aspects of the structure of the clause.

Existential Predication

The basic lexical item used to express existence is *ay*, "there is." It is not a loan word (from Spanish *hay*, "there is"), as the closely-related Tzotzil features an undoubtedly related predicate *oy* (Haviland 1981, Aissen 1987). It takes absolutive markers to cross-reference the person of the argument of the existential predicate:

(139) a. ay-Ø waj
EXIST-B:3 tortilla
'There is/are tortilla(s)'

b. li7 ay-on-ix-i
here EXIST-B:1-already-PROX
'I am here already' [HBC:1289]

The word used to express the lack of existence is *mayuk*. It can be analyzed as *ma-ay-uk* (NEG-EXIST-IRR), as is demonstrated when a modal clitic *-to* ("still") intervenes:

(140) a. mayuk lus
NEG.EXIST electricity
'There is no electricity'

b. ma-to ay-uk lus
NEG-still EXIST-IRR electricity
'There is still no electricity'

Mood and Modality

There is one modality marker in Tzeltal: *-uk*. It occurs with negative existentials, as described in "Existential Predication," above. This irrealis marker likewise occurs with "was going to..." constructions with intransitive complements, as described in "Counterfactual Past

Incompletive" on page 54, above. The most common use, however, seems to be with a type of negation such as in the following example:

(141) te ts^i7 laj smil-Ø pero ma7 mis-uk
DET dog PFV A:3-kill-B:3 but NEG cat-IRR
'The dog did kill it, but it was not a cat (that it killed)'

In (141) the speaker is agreeing with the assertion that the dog killed something, but denying that it was a cat that it killed. Since it is not possible to negate a specific constituent in Tzeltal (see "Negation" on page 64, below), the constituent negated bears an irrealis mood marker.

The clitics *-to* ("still") and *-ix* ("already") also could be considered modal, in the sense that they encode speaker's attitude toward the proposition expressed (but not in the sense of expressing propositions over possible worlds). Both prefer to be second-position clitics, though *-to* prefers a position immediately after NEG and will break up a constituent to do so, while *-ix* will not do so. Compare:

(142) a. mayuk-ix lus
NEG.EXIST-already electricity
'Already there no electricity'

b. ma-to ay-uk lus
NEG-still EXIST-IRR electricity
'There is still no electricity'

Clitic placement is discussed in more detail in "Clitic Placement", below.

Evidentials

There are (at least) three types of morphological evidentials in Petalcingo Tzeltal: the reportative *-laj* and the dubitative *-wan*, and the "emphatic" *-me*.

The reportative *-laj* is an enclitic that signals that the information comes from the source other than the speaker. It is used extensively in retelling stories, repeating what someone else had said, etc:

(143) a. "me li7 ay-Ø-ix" xchi-laj
"EMPH here EXIST-B:3-already" say-EVID
' "It is here already", he says/said [AMP-FS:0129]

b. baht-Ø laj-ix ta way-el
go-B:3 EVID-already PREP sleep-PART
'He went to bed' (retelling a story) [PMP-FS2:0013]

The *-laj* marker seems to prefer to cliticize to the aspect marker, as is shown below:

(144) laj k-a7i-Ø laj-laj s-mil-Ø j-kojt mut
PFV A:1-hear-B:3 PFV-EVID A:3-kill-B:3 one-NC chicken
'I've heard that he/she/it, killed a/one chicken'

It will be recalled that transitive clauses with unmarked aspect are interpreted as incompletive, with the reflex of the former incompletive marker *yak*, now *ya*, functioning as an emphatic marker. The incompletive *ya* is sometimes inserted as a host for the reportative *-laj* as in the following example:

(145) te winik-e ya-laj s-mil-Ø te mis-e
DET man-CL ICMP-EVID A:3-kill-B:3 DET cat-CL
'The man, he/she/it/they say, kills the cat'

I have one textual example of the reportative *-laj* clitic interrupting a constituent, as follows:

(146) ta yan-laj-ix lugar banti a7 k^ot-7a me y-ok-e
PREP other-EVID-already place where PT arrive-? DET A:3-foot-CL
'It is in another place that his foot came'

It appears the everything after *banti* forms a relative clause, with *lugar* as the head. This means that the matrix clause is lacking a verb, and consequently aspect marking, which helps explain the location of the reportative *-laj* in (146).

The dubitative *-wan* enclitic marks information about which the speaker has some doubt, or is uncertain about. It seems to freely attach itself to any constituent, though generally it seems to attach to the focus, or new information, in the clause. Some examples follow:

(147) a. ma-wan ejido-h-uk a?
NEG-EVID village-EPN-IRR DIST
'creo no era ejido? It wasn't a village, no?' [N:0004]

b. lek-wan in machit-e
good-EVID DEM machete-CL
'I think this one (machete) is good' [HBC:0299]

c. ma-wan
NEG-EVID
'I don't think so'

d. ta Yajalon-wan
PREP Yajalon-EVID
'I think to Yajalon' (as a response to "Where did he/she go?")

The other clitic to be discussed in this section is the "emphatic" *-me*. I originally considered this morpheme as an emphatic marker, however, in Haviland 2002 the cognate morpheme in Tzotzil is analyzed as a second-position evidential clitic, in paradigmatic opposition to reportative *-laj*. This analysis seems appropriate for Petalcingo Tzeltal, as the *-me* marker appears to be less than fully grammatical with *-laj*:

(148) a. *? laj-laj me s-maj-Ø
PFV-EVID EMPH A:3-hit-B:3
'(really!) he did hit him, I heard'

b. ? laj me laj s-maj-Ø
PFV EMPH EVID A:3-hit-B:3
'(really!) he did hit him, I heard'

Haviland glosses the *-me* as marker of "speaker as principal", where (in opposition to *-laj*) the speaker asserts that the speaker him/herself is the source of the information. This analysis seems to be appropriate for Petalcingo Tzeltal, except that it appears that in

Petalcingo in addition *-me* frequently signifies (implies) "I (forcefully) assert (the truth of what I am saying)."[26] A minimal pair might be sited:

(149) a. laj k-a-be-y-ix
PFV A:1-give-APPL-EPN-already
'ya le dí; I already gave it to him/her/it'

b. laj me k-a-be-y-ix
PFV EMPH A:1-give-APPL-EPN-already
'ya le dí; I already gave it to him/her/it'

The two locutions cited in (149) are paraphrases. However, while the first one may be a good response to "What happened?" or "What did you do with the water?" the second one is more appropriate as a contrastive response to "You didn't give it to her/him/them/it!"

Other evidentiality in Petalcingo Tzeltal is expressed by distinct lexical items, the syntax of which has not been investigated. A brief list is shown in the following table:

Lexical Item	Literally	Meaning
mehlel	truth, truthfully	It is the truth what I am saying
k^ajon	?	It appears this way (inference?)

Table 20: Evidential Adverbs

Negation

The negative marker in Tzeltal is *ma*. It appears at the left edge of the clause preceding all the verbs and the auxiliaries:

(150) ma-x aw-il-ik jaex-e7?
NEG-ICMP A:3-see-PL you.PL-CL
'Ustedes no lo ven? You(pl) do not see it?'

As discussed below in "Clitic Placement," the negative marker frequently hosts modal and evidential clitics. Interestingly, however, when a constituent is fronted, it appears to the left of the negative marker:

(151) ja7 laj me ts^i7-e ma7 laj ba kuhch
F/T EVID DET dog-CL NEG PFV ? hold
laj y-il-Ø ejuk me sna xuxe
EVID? A:3-see-B:3 alse DET A:3-house wasp-CL
'No avanto los ganas de ver la casa de avispo;
(The dog) did not (could not) control his desire to see the wasps' nest'
[PMP-FS2:0078]

This may indicate that the fronted constituents are clause-external topics along the lines of the analysis proposed in Aissen 1987.

Negated constituents are expressed in a clause with the usual negative marker *ma*, however, the negated constituent bears an irrealis marker, as was already discussed.

[26] It may be plausible to postulate a historical relation between the evidential *-me* and the definite article *me* described in "Determiners" on page 39, above.

Questions

Traditionally, in other Mayan languages a question marker is used to form yes/no and other non-wh-word questions. Such a marker also exists in Petalcingo Tzeltal, but to my knowledge it is not always used. An example follows:

(152) ay-bal chenek^
EXIST-Q beans
'Are there beans?'

Wh-questions are formed with wh-words, which are summarized in the following table:

Wh-word	Meaning
bin(ti)	what
ban(ti)	where / what / which
mach^a	who
jay(eb)	how many

Table 21: Wh-words

The wh-words are obligatorily fronted. Given that there is no evidence of case in Petalcingo Tzeltal, wh-questions out of context may be ambiguous:

(153) mach^a laj s-mil-Ø
who PFV A:3-kill-B:3
'Who killed him/it/her?' or 'Who did he/she/it kill?'

The first two items in the above table may appear with or without the final (*-ti*) and the criteria governing its appearance are obscure to me. The question word "whose" does not exists in Petalcingo Tzeltal: this question instead is formed with *mach^a* + *yu7un*:

(154) mach^a y-u7un in machit-i
who A:3-for DEM machete-PROX
'Whose machete is this?'

To form "which"-type questions, the word *banti* is used:

(155) banti mut-il?[27]
what chicken-PCHG?
'which chicken?'

Wh-words are also used in the formation of the relative clauses (see "Relative Clauses" on page 70, below). Multiple wh-questions (such as "who killed whom") are impossible in Petalcingo Tzeltal.

Reflexives

The reflexive morpheme in Petalcingo Tzeltal is *-ba*, and it obligatorily takes a Set A marker. Historically, it may be related to the word *ba* ("top, forehead"). Some examples of reflexive constructions are shown below:

[27] It appears that when forming "which"-type questions, either an *-il* or a *-Vl* suffix is required on the questioned nominal. The syntax of the usage of this suffix in "which"-type constructions is obscure to me.

(156) a. laj s-nak^ s-ba
PFV A:3-hide A:3-REFL
'He hid himself'

b. laj k-nak^ k-ba
PFV A:1-hide A:1-REFL
'I hid myself'

The *-ba* anaphor functions as the (transitive) object argument of the verb, as is evidenced by the appearance of the ergative morpheme on the verb, and lack of the overt absolutive agreement in (156b). (Aissen 1997 argues the same for Tzotzil, though she argues that there is a Ø 3rd-person agreement on the verb)

Though Tzeltal does not feature a morphological reflexive, the *-ba* anaphor seems to behave very much like one: unlike regular patient arguments of the verb, which are free to move, the reflexive must appear immediately after the verb, a highly unusual phenomenon in a free word-order language such as Tzeltal. The apparent exceptions to this rule are reflexive-like constructions that do not involve a verb, to be described below. Some evidence for the claim that the verb and a reflexive anaphor form a tightly integrated unit comes from plural agreement facts. When a plural agent acts on a patient, the verb (optionally) agrees with the agent in number, whereas in plural reflexive constructions, this agreement must appear on the anaphor, and never on the verb (at least for some speakers):[28]

(157) a. laj k-mil-tik te mut-etik-e
PFV A:1-kill-PL DET chicken-PL-CL
'We killed the chickens'

b. laj k-nak^ k-baj-tik
PFV A:1-hide A:1-REFL-PL
'We hid ourselves'

c. * laj k-nak^-tik k-baj-tik
PFV A:1-hide-PL A:1-REFL-PL
'We hid ourselves'

Example (157a) shows regular plural agreement on the verb. As (157c) demonstrates, the same plural agreement on the verb is ungrammatical when the verb takes a reflexive complement. The plural agreement in reflexive constructions must appear on the reflexive anaphor *-ba*, and not on the verb itself. This suggests that whatever the syntax of Tzeltal reflexive constructions, the reflexive anaphor must be located very close to the verb, resembling, in some ways a morphological reflexive (which would be typologically expected in a head-marking language like Tzeltal anyway). Furthermore, unlike regular objects of transitive verbs, *-ba* cannot be fronted away from its post-verbal position. Thus compare a regular (non-reflexive) usage in (158) versus the reflexive in (159), where fronting the "object" is ungrammatical:

(158) a. laj s-mil-Ø te mut-e
PFV A:3-kill-B:3 DET chicken-CL
'He/she/it killed the chicken *or* The chicken killed him/her/it'

[28] Others find examples like (157c) possible, but dispreferred.

b. te mut-e laj s-mil-Ø
DET chicken-CL PFV A:3-kill-B:3
'He/she/it killed the chicken *or* The chicken killed him/her/it'

(159) a. laj s-nak^ s-ba
PFV A:3-hide A:3-REFL
'She/he/it hid himself/herself/itself'

b. * s-ba laj s-nak^
PFV A:3-hide A:3-REFL
'She/he/it hid himself/herself/itself'

Even though the *-ba* particle appears in some aspects to resemble a morphological reflexive, in other respects the Petalcingo Tzeltal reflexive construction is fully transitive: it features ergative marking on the verb, and, like other transitive verbs is interpreted as incompletive in the absence of overt aspectual morphology.

The reflexive anaphor also appears in other, verb-less contexts. These uses are puzzling, in that it appears that they need not / should not be reflexive:

(160) a. sole xiben s-ba me ton-tik-il-i
only fear A:3-REFL DET rock-PL-PCHG-PROX
'da miedo el pedregal; only that the rock place is scary' [HBC:0617]

b. k^ax t^ujbil-to s-ba ta pas-el
very beautiful-still A:3-REFL PREP do-PART
'Era muy bonito lo que hacia; It was very beautiful what they did' [Fra1:0005]

c. k-ala tukel-tike ma7 obol k-bah-tik
A:1-DIM solo-PL-CL NEG hurt A:1-REFL-PL
'nosotros solito, a poco no damos lastima;
holy cow, we don't hurt ourselves alone' [HBC:0940]

One hypothesis about these verbless reflexives (at least some of them, such as (160b)) is that the lexical items they appear with (such as *t^ujbil*) may only function as modifiers (similar to nouns with modifier morphology), i.e. they may be used neither a predicates, nor as arguments. The obligatory reflexive provides the overt syntactic noun (semantically empty) which these words may then modify. This idea receives some support from the fact that *t^ujbil* quite frequently appears without the accompanying reflexive exactly when there is an overt noun it can modify:

(161) t^ujbil achix
beautiful girl
'beautiful girl'

This plainly is not true for the *xiben sba* construction, as *xiben* may not function as an attributive:

(162) * xiben winik
fear man
'fearsome man'

Thus a different account must be sought to explain the *xiben*-type reflexives. It is possible, that reflexive analysis of *-ba* is not appropriate in these cases.

Secondary Predicates

As I have argued above (in "Are There Adjectives in Tzeltal?" and "Positionals") nouns used as modifiers but without the attributive suffix, as well as positionals, are actually secondary predicates. What is interesting is that secondary predicates in Petalcingo Tzeltal seem to be required to bear absolutive cross-reference markers:

(163) a. * laj k-il-at jot^-ol
PFV A:1-see-B:2 crouched-PRED
'I saw you and you were crouched; I saw you crouched'

b. laj k-il-at jot^-ol-at
PFV A:1-see-B:2 crouched-PRED-B:2
'I saw you and you were crouched; I saw you crouched'

This seems to differ from Tzotzil, where there is dialectal variation with respect to absolutive agreement on secondary predicates, but in no dialect is such agreement obligatory. Likewise, it seems that in Oxchuk Tzeltal (Fransisco Javier Sánchez Gómez, p.c.) at least in some secondary predicate constructions the absolutive cross-reference is ungrammatical.

Subordinate Clauses

There seem to be at least three complementizers in Petalcingo Tzeltal: *te*, *me*, and *Ø*:

(164) a. laj k-il-Ø te laj s-maj-Ø s-ts^i7 te Pedro-j-e
PFV A:1-see-B:3 COMP PFV A:3-hit-B:3 A:3-dog DET P.-EPN-CL
'I saw that Pedro hit his dog'

b. laj k-il-Ø me laj s-maj-Ø s-ts^i7 te Pedro-j-e
PFV A:1-see-B:3 COMP PFV A:3-hit-B:3 A:3-dog DET P.-EPN-CL
'I saw that Pedro hit his dog'

c. laj k-il-Ø laj s-maj-Ø s-ts^i7 te Pedro-j-e
PFV A:1-see-B:3 PFV A:3-hit-B:3 A:3-dog DET P.-EPN-CL
'I saw that Pedro hit his dog'

Interestingly enough they seem to correspond to the determiners available, though no systematic work has been done to see if the *me* complementizer is somehow more definite. One avenue of research[29] would be to see if clauses headed by *me* might be factive.

Conditional subordinate clauses are formed with the complementizer *te* followed by *me* as in:

(165) a. te me x-bah-at ta Majasil x-mil-ot-at
COMP EMPH? ICMP-GO-B:3 PREP Majasil ICMP-KILL-PASS-B:2
'If you go to Majasil, you will be killed '

[29] I appreciate this suggestion by Matt Pearson.

b. tal-Ø laj y-il-Ø me s-ts^i7
come-B:3 EVID A:3-see-B:3 DET A:3-dog
te me mayuk bin laj s-pas-Ø-e
COMP EMPH? NEG.EXIST what PFV A:3-do-B:3-CL
'(He) came to see his dog, (to see) if nothing happened (to it)'
[PMP-FS2:0053]

There are different possible ways of analyzing this construction: a) as having something akin to two complementizers, perhaps in different projections, b) as a complementizer followed by essentially a DP, headed by *me*, or c) with *me* as some sort of relative of the emphatic evidential *me*. The second of the hypothesis can be ruled out on the basis of the * COMP DET prohibition discussed immediately below, while the third seems semantically implausible, since *me* is generally used to attest the truth, rather than conditionality of a proposition. It is possible that a different *me* needs to be postulated in this case.

Wh-items may be freely extracted from subordinate clauses, whether headed by an overt COMP or no:

(166) mach^a laj a-wil-Ø te laj s-maj-Ø s-ts^i7-e
who PFV A:2-see-B:3 COMP PFV A:3-hit-B:3 A:3-dog-CL
'Who did you see hit his dog?'

Relative clauses highlight an interesting prohibition against COMP followed by a DET (* COMP DET). Thus, for example, an agent argument of a subordinate clause (itself headed by a complementizer) can normally be headed by a specific (and/or definite) determiner, however, if the agent NP is fronted, ungrammaticality results:

(167) a. te/me Pedro-j-e laj s-maj-Ø te s-ts^i7-e
DET Pedro-EPN-CL PFV A:3-hit-B:3 DET A:3-dog-CL
'Pedro hit his dog'

b. laj k-il-Ø te/me laj s-maj-Ø te s-ts^i7 te/me Pedro-j-e
PFV A:3-see-B:3 COMP PFV A:3-hit-B:3 DET A:3-dog DET Pedro-EPN-CL
'I saw Pedro hit his dog'

c. * laj k-il-Ø te/me te/me Pedro-j-e
PFV A:3-see-B:3 COMP DET Pedro-EPN-CL
laj s-maj-Ø te s-ts^i7-e
PFV A:3-hit-B:3 DET A:3-dog-CL
'I saw Pedro hit his dog'

This could be considered in instance of "stuttering prohibition." Stuttering prohibition is the observed tendency of languages to disprefer a sequences of identical segments. In English this could be demonstrated with the following examples:

(168) a. It is obvious that it bothers the clown that the elephant smokes

b. That the elephant smokes bothers the clown

c. * It is obvious that that the elephant smokes bothers the clown

Syntactically there seems to be no reason for (168c) to be ungrammatical, therefore it is assumed that the adjacency of *that* to *that* is the reason for ungrammaticality. Another

example of the stuttering prohibition (at the morpheme level) in English is *foolish-ly* versus * *ugly-ly*.

The problem with assuming that * COMP DET is an instance of the stuttering prohibition is that it is not clear why the stuttering prohibition would apply to the *te me* sequence, since a) the segments would appear to be sufficiently distinct and b) this sequence appears to be (phonologically) fine elsewhere, such as in (165). Thus, the * COMP DET prohibition remains one of the features of Tzeltal that requires further investigation.

Relative Clauses

Relative clauses in Petalcingo Tzeltal are externally headed, usually head-initial, and are generally formed via wh-words (see Table 21, on page 65, above), with the wh-words introducing the relative clause:

(169) a. me sak-e mach^a yakal-Ø ta we7-el
DET white-CL who PROG-B:3 PREP eat-PART
'The white one that's eating'

b. k-al-Ø jo7on chopol bin yak s-pas-ik li7 ta iglesiya-j-e
A:1-say I bad what EMPH A:3-do-PL here PREP church-EPN-CL
'I say it is bad what they do in the church here'

Deictic Clitics

There are two deictic clitics in Petalcingo Tzeltal, the distal *-(7)a* and the proximal *-i*. Of the two, *-a* is much more common, and although it seems to be a clause-level clitic it frequently cliticizes to the word *tey* ("there"):

(170) aaa, ja7 tey-a
aaa, F/T there-DIST
'aaa, there'

That in the clause-final position *-a* is a distal clitic can be shown by following examples:

(171) laj k-il-Ø-a
PFV A:1-see-B:3-DIST
'Alli lo vió; There I saw it'

where the word *tey* ("there") is not in the clause itself but is understood, owing to the presence of the distal clitic.

The proximal deictic clitic is *-i*, and it occurs frequently with demonstratives:

(172) ja7-in winik-i
F/T-DEM man-PROX
'this man'

Both, the distal *-a* and proximal *-i* have grammaticalized into (or from?) other meanings. The *-a* can now be considered a tense marker. As discussed above, nouns generally do not take aspectual markers; thus, the only way to say "I was a man" is as follows:

(173) winik-on-a
man-B:1-DIST
'I was a man'

The *-i* can be used for emphatic effect, perhaps somehow "bringing" the referent marked with the proximal closer to the discourse situation:

(174) laj k-il-Ø-i
PFV A:1-see-B:3-PROX
'Sí, lo vió; Yes, I saw it'

The *-e* Clitic

This clitic poses a vexing problem for the analysis of Petalcingo Tzeltal in this work, as this morpheme is rather ubiquitous in discourse, yet its function is not well understood. It attaches to the right edge of a DP, or a relative clause (which also may be inside the DP) as in this example:

(175) ma xu k-u7un te 7a7tel yakalon-e
NEG able A:1-for DET work PROG-B:1-CL
'No puedo hacer el trabajo que estoy haciendo;
I cannot do the work I am doing'

Aissen 1992 points out that only topics in Tzotzil may take the *-e* enclitic, but does not suggest a gloss for this morpheme. Polian 2003b analyzes this clitic in Oxchuk Tzeltal as a definite determiner in combination with *te*. Clifton 2001 suggests a functional analysis of the *te…-e* bracketing whereby in a transitive clause with two postverbal arguments it is the agent that receives the *te…-e* marking, and in a presence of an argument in pre-verbal position both arguments can take the *te…-e* marking.

In Petalcingo Tzeltal the *-e* clitic may appear either with a determiner (*te* or *me)* or, less frequently, without. Therefore, it seems that in this variant, it would be necessary to study this lexeme both in combination with and in the absence of an overt determiner.

In out-of-context transitive constructions where either overt argument could be considered the agent or the patient, it seems to help to disambiguate, preferring to appear on the agent. This is most clearly shown in a wh-question formed from a transitive predicate:

(176) a. mach^a7 laj s-maj-Ø winik
who PFV A:3-hit-B:3 man
'Who hit the man?'

b. mach^a7 laj s-maj-Ø winik-e
who PFV A:3-hit-B:3 man-CL
'Who hit the man?' or 'Who did the man hit?'

As we've already seen (in "Questions" on page 65, above), wh-questions formed from transitive clauses are ambiguous, because the wh-word does not change form depending on whether it is the subject or the object of the transitive verb. However, in (176a), unlike (176b), the preferred interpretation is with the subject questioned, not object. This it seems is due to awkwardness of interpreting the nominal not marked with *-e* as the subject (though I believe such an interpretation could probably be forced). This observation seems to correlate with the analysis in Clifton 2001.

As the authors cited here suggest, the *-e* clitic also seems to have something to do with specificity / definiteness, as the topicalized/focused constituent with *ja7* (at least in those elicited examples) must bear this clitic (see examples in (179)). Likewise the nominals bearing

this clitic fail the "definiteness restriction" (see "Determiners" on page 39, above), even without an overt determiner:

(177) a. ay mut
EXIST chicken-CL
'There a chicken'

b. * ay mut-e
EXIST chicken-CL
'There is the chicken'

However, an interesting wrinkle on this issue is posed by the fact that there is (another) definite determiner: *me*.

Topic and Focus

This section discusses topic and focus marking in Petalcingo Tzeltal. As my own research on this subject is vastly insufficient, I will content myself with reviewing some of the literature available on this subject, and adding my own observations where it seems appropriate.

As was briefly mentioned in "Word Order, Pro-Drop and Head/Dependent-Marking" on page 31, above, Polian 2003b proposes that topics in Tzeltal appear after the predicate. However, to Polian, this is the less marked topic position. He suggests that clause-initial positions are also topic positions, positions where marked topics appear. The focused constituent, on Polian's analysis is immediately preceding the predicate.

This accords well with the topic and focus proposal articulated in Aissen 1992.[30] She proposes that in Tzotzil there is a clause-external topic position and a clause-internal (pre-IP) focus position.

One of the Tzeltal topic markers Polian 2003b discusses is *ja7*, which he says can also be analyzed as a non-verbal predicate. However, its principal function, according to Polian is as a focus marker. In this Polian postulates that *ja7* is a marker of "outstanding information,"[31] or emphasis, and as such marks either topic or focus.

The focus function of this marker proposed by Polian accords with some of my elicited contrastive focus constructions:

(178) ma-ja7-uk a me mut-e
NEG-F/T-IRR PT DET chicken-CL
'No, it is NOT the chicken'

On the other hand, this correspondence was not very consistent in my elicitations, and perhaps should not be seen as reliable. Additionally an argument against the focus analysis of *ja7* is the fact that it seems to require a [+specific] complement. This fact is pointed out in Polian 2003b (with the focus use of *ja7*), and is supported for Petalcingo Tzeltal by the following (albeit elicited) data:

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[30] While this work proposes analyses of three Mayan languages, namely Tzotzil, Jacaltec, and Tz'utujil, I will only address the Tzotzil portion of her argument, as Tzotzil is very closely related to Tzeltal, and is the most closely-related of the three.

[31] información destacada

(179) a. ja7 me johkote laj smil te winike

b. ja7 te johkote laj smil te winike

c. ja7 jkoht johkote laj smil te winike

d. * ja7 johkot laj smil te winike

e. * ja7 te johkot laj smil te winike

f. * ja7 johkote laj smil te winike

In the above example *ja7* appears ungrammatical with nominals which do not bear the *-e* marker[32] and a determiner or a numeral. As Matt Pearson pointed out to me, one would not expect a language to require a [+specific] (or a [+definite]) focus, as focus generally serves to introduce new information. For a topic marker, a [+specific] or a [+definite] requirement would not be unexpected since topics are by their nature entities already present in discourse.

Since I am not prepared to take a stand on the nature of the *ja7* morpheme, I gloss it as F/T in the present work.

Clitics

Tzeltal is a rather clitic-rich language. Clitics are grammatical morphemes that occupy an intermediate status between affixes (prefixes and suffixes) and words. Like affixes, clitics must attach to a phonological host, a word, and like affixes they sometimes trigger word-internal phonological processes. On the other hand, like words, clitics are positioned syntactically, rather than via lexical processes (at least if we are to accept the independence of lexicon from syntax).

Tzeltal features both Wackernagel (second-position) clitics, and clitics that attach to words and phrases. While many of the Tzeltal clitics require further investigation before any conclusions about their status can be made, A summary of Tzeltal clitics is given in the following table:[33]

Clitic	Meaning	Domain	Edge
-laj	EVID:reported	neg/verb/aux	right
-wan	EVID:belief	neg/verb/aux	right
-to	modal:still	neg/aux/predicate	right
-ix	modal:already	neg/aux/predicate	right
-a	deictic:distal	clause	right
-i	deictic:proximal	clause/DP	right
-e	determiner?	DP?	right
ERG-	person	VP	left

Table 22: Clitics

[32] As discussed above, the *-e* clitic seems to mark (among other things) definiteness and/or specificity.

[33] The intransitive incompletive marker *x-* which seems to attach either to the right edge (to negative marker *ma*) or the left edge (of the verb) may need to be in this table as well.

Since the modal and evidential clitics have already been discussed, I only discuss other (possible) clitics, as well as clitic placement in this section.

Other Clitics

The two other possible clitics that deserve serious consideration, are *-ba* and *-a*. *-ba* frequently occurs with negation:

(180) pero ma-ba y-u7un-uk k^ax jelawen
but NEG-ba A:3-for-IRR very much
'Pero que no sea demaciado; But it would not be too much' [HBC:0018]

The fact that *maba* is formed from two different lexical items is clear from the fact that it can be interrupted by another clitic:

(181) pe7 ja7 me wits^ kereme ma7 laj ba laj s-nuj-Ø
but F/T DET small boy-CL NEG EVID ba PFV A:3-close-B:3
'But the little boy did not close it' [PMP-FS2:0016]

It is possible that it is a contraction or a relative of *bal*, the interrogative particle.

-(7)a performs many functions in Tzeltal discourse: it is a Set A 2nd-person marker, a distal clitic, a marker of agreement (see Haviland 2002 on Tzotzil *-a7a*), perhaps a complementizer (see "Subordinate Clauses" on page 68, above), and also frequently appears on the negative marker:[34]

(182) a. pe7 te jo7otik-e ma-7a
but DET we-CL NEG-a
'But, we, no (we don't do it)' [HBC:0166]

b. ma-7a s-tsak-oj-Ø xik^-i como s-kuch-oj-Ø
NEG-a A:3-grab-PERF-B:3 wing-PROX because A:3-carry-PERF-B:3
'No lo tiene agarrado su ala, pero lo tiene cargado;
(She) does not have its wings (in her hand), because it (the chicken) is carrying (its wings)' [HBC:0428]

It is not clear how many different functions *-(7)a* serves and how many of these can be analyzed in a non-disjunctive manner, but when attaching to the negative marker *ma* it seems to act like a clitic. In this work, I have glossed non-distal *-(7)a* as PT (particle), and it is not unlikely that even some instances of *-(7)a* which have been glossed as distal markers are in fact something else.[35]

Finally, I argue in Chapter 3 that the ergative/possessive cross-reference markers are also clitics.

[34] It is quite probable that *-7a* and *-a* are different entities, if the form tells us anything. Clearly more work remains to be done here.

[35] I base this speculation purely on the fact that they seem to occur with relative frequency in texts.

Clitic Placement

We've already seen how *-to* usually attaches to a position to the left of the position where *-ix* attaches (also see examples (184) and (185) below):

(183) a. mayukix
ma-ay-uk-ix
NEG-EXIST-IRR-already
'there is already no ...'

b. ma-to ay-uk
NEG-still EXIST-IRR
'there is still no ...'

The reportative *-laj* prefers to attach to an auxiliary, or to the negation marker *ma*. It seems to appear in a position between the *-to* and *-ix*:

(184) a. yakal-to-laj s-mil-bel-Ø
PROG-still-EVID A:3-kill-PART-B:3
'He is still killing it (reportative)'

b. * yaka-laj-to s-mil-bel-Ø
PROG-EVID-still A:3-kill-PART-B:3
'He is still killing it (reportative)'

(185) a. yakal-laj-ix s-mil-bel-Ø
PROG-EVID-already A:3-kill-PART-B:3
'He is already killing it (reportative)'

b. * yakal-ix-laj s-mil-bel-Ø
PROG-already-EVID A:3-kill-PART-B:3
'He is already killing it (reportative)'

In the examples and (185a) *-ix* appears on the matrix verb. On the other hand, sometimes, where evidential *-laj* appears on the auxiliary, the *-ix* appears on the dependent verb:

(186) a. i laj-laj s-koj-tes-ix ta lum-7a
and PFV-EVID A:3-descend-CAUS-already PREP ground-DIST
me este y-ala ts^i7 me wits^ kerem-e
DET this A:3-DIM dog DET small boy-CL
'And the little boy put the dog down on the ground' [PMP-FS2:0058]

Though not enough evidence is available, it appears as if *-wan* occupies the same position as *-laj*:

(187) a. laj-to-wan s-mil-Ø
PFV-still-EVID A:3-kill-B:3
'He still killed him, I think'

b. te winik laj-wan-ix s-mil-Ø te ts^i7-e
DET man PFV-EVID-already A:3-kill-B:3 DET dog-CL
'El hombre ya mato tal vez el perro; The man already killed the dog, I think'

This would not be surprising since both are evidential clitics, and would accord with the analysis proposed in Haviland 2002. As was discussed above *-me* appears to be in complementary distribution with *-laj* and I assume that it occupies that same position.

Finally, if *ba* is to be considered a clitic (and it is far from clear that it should be), and even if it is not, it seems to appear to the right of the evidentials, but to the left of the modal *-ix*:

(188) ma7 laj ba-y-ix chikan-Ø me onkonak
NEG EVID ba-EPN-already appear-B3 DET frog
'The frog did not appear (was not seen)'

This yields the following placement chart:

(189)

NEG >	MODAL: -to	>	EVID: -laj -wan -me	> -ba >	MODAL: -ix

If a NP/DP is fronted to a focus position (as in (187b)), it appears that it is ignored for the purposes of clitic placement.

The clitics that are frequently located at the right edge of the clause rarely co-occur, however, when they do, the order seems to be:

(190)

MODAL	>	DEICTIC	>	-e
-ix		-i -a		

This can be shown with the following examples:

(191) a. tey-a jil-ik-ix-a
there-DIST remain-PL-already-DIST
'They remained there' [Rio:0064]

b. te sataje te ten-el-a-j-e
DET saint COMP push-PART-DIST-EPN-CL
'The saint that was buried' [Rio:0133]

However, this may simply be owning to the fact that where the distal *-a* appears with the *-e* clitic, the *-a* applies to the subordinate clause, which *-e* marks.

Conclusion

In this chapter I provide an overview of the Petalcingo Tzeltal grammar. Owing both to space limitations, and time constraints, the grammatical sketch is necessarily partial, and surely contains significant gaps. Nonetheless, it is my hope that this grammatical sketch, however incomplete, of a heretofore almost completely unstudied dialect of Tzeltal might prove useful to scholars of Mayan in general and of Tzeltal in particular.

Some of the most interesting features of this language/dialect are, coincidentally, the ones that posed the greatest challenge to the author. The present status of the /j/ and /h/ distinction, which may be the result of de-phonemization of /j/, may offer an opportunity for a close scrutiny of phonemic distinction in a language. Also noteworthy are the ubiquitous *(7)a* morpheme(s), which at least on the surface appear to serve several different functions. This form, at least in some of its uses seems to be absent from other dialects of

Tzeltal, as one of the native speaker linguists from Ocosingo seemed unfamiliar with the Petalcingo usage of this form. The definite determiner *me*, though am unsure about its status in other variants, seems to be absent from the closely-related Tzotzil. Another striking feature of Tzeltal noted in this grammatical sketch is the radical disjunctiveness of the aspectual system, which seems to treat transitive and intransitive verbs as very different entities. This distinction seems to be maintained throughout the language, as the aspectual markings are generally consistent with the verb's new valence when a verb is transitivized or detransitivized.